Voluntary Remediation Program July 2013 Semiannual Progress Report

Prepared for
Former MacGregor Golf Company Site
HSI Site No. 10398
Albany, Georgia
July 30, 2013

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Submitted to the Georgia Environmental Protection Division

On Behalf of Brunswick Corporation Albany Sport Co. Albany Partners, LLC



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Introduction

This Semiannual Progress Report for the Former MacGregor Golf Company Site (Site) was prepared by Brown and Caldwell (BC) on behalf of Brunswick Corporation, Albany Sport, Co., and Albany Partners, LLC (the Group) for submittal to the Response and Remediation Program of the Land Protection Branch of the Georgia Environmental Protection Division (EPD). The Site is located at 1601 South Slappey Drive in Albany, Dougherty County, Georgia (Figure 1). The Site is a participant in EPD's Voluntary Remediation Program (VRP) and is listed on EPD's Hazardous Site Inventory (HSI) as Site No. 10398. This report describes the work performed related to the Site from the last Semiannual Progress Report dated January 30, 2013 through July 30, 2013.

1.1 Background

The Former MacGregor Golf Company Site was accepted into the VRP on July 30, 2012. The Site history, description, regulatory history, and previous environmental work are described in detail in the Compliance Status Report (CSR [BC 2006]), Revised CSR and Corrective Action Plan (CAP [BC 2008]) and subsequent addenda (BC 2009) submitted in compliance with the former Hazardous Site Response Act (HSRA) Program (now part of EPD's Response and Remediation Program). Additionally, soil and groundwater data were also submitted to the EPD in the April 2011 VRP application, February 2012 Revised VRP Application and January 2013 Semiannual Progress Report. In summary, since 2002, the Group has conducted zero valent iron pilot testing in the source area, soil and groundwater delineation, and groundwater monitoring.

1.2 Report Organization

This report presents the work conducted from January 30, 2013 to July 30, 2013, and includes the results of groundwater level measurements, groundwater sampling, and soil sampling.

This report is organized into seven sections. The present section references the project background and provides an outline of the report. The work performed during this period is described in Section 2.0, and Section 3.0 presents the results of the work conducted this period. Section 4.0 presents the updated Conceptual Site Model. Future work presently anticipated to complete the VRP objectives is presented in Section 5.0. The Engineer's services this period are summarized in Section 6.0. Limitations associated with the use of this report are noted in Section 7.0. References cited are provided at the conclusion of the report.



Work Performed This Period

Work at the Site since the submittal of the last Semiannual Progress Report dated January 30, 2013 involved both groundwater and soil assessment and has consisted of the following tasks:

- Execution of off-Site property access agreement
- · Groundwater level measurements
- Groundwater sampling at MW-26 and Spartan MW-2
- Soil sampling in the vicinity of B-4.

These activities are discussed in the following sections.

2.1 Groundwater Assessment

The following groundwater activities were completed in February and May 2013. The monitoring well locations are shown on Figure 2.

2.1.1 Off-Site Access

As discussed in the January 2013 Semiannual Progress Report, the off-Site property owner to the north, Spartan GA, has two monitoring wells located on their property. The monitoring wells, MW-1 and MW-2, are located approximately 250 and 100 feet northeast of MW-26, respectively. The monitoring well closest to MW-26 (MW-2) was installed to a depth of 64.5 feet, which is similar to the depth of MW-26. An access agreement was granted from Spartan GA on January 30, 2013 to sample the existing well MW-2 (Spartan MW-2). The location and elevation of Spartan wells MW-1 and MW-2 were surveyed in May 2013, and the locations are shown on Figure 2.

2.1.2 Groundwater Level Measurement

Groundwater levels were measured in the monitoring wells at the Site and off-Site Spartan wells MW-1 and MW-2 in February and May 2013. Groundwater levels were measured prior to sampling in MW-26 and Spartan MW-2 on February 20 and 21, 2013, respectively.

Site-wide water level gauging was conducted on May 6, 2013. The depth to groundwater was measured in 14 upper water bearing zone wells (MW-1 through MW-4, MW-10 through MW-14, MW-18, MW-19, MW-22, MW-23 and MW-25) and 11 lower water bearing zone wells (MW-5 through MW-7, MW-9, MW-15 through MW-17, MW-24, MW-26, Spartan MW-1 and Spartan MW-2) at the Site. All measurements were completed prior to any purging or other monitoring activities, using a Heron 100-foot water level meter. The measured depths to water were recorded as shown on Table 1. The downhole portion of the water level meter was decontaminated with Alconox® and rinsed with distilled water between wells.

The measured depths to water and the surveyed elevations of the monitoring wells in the upper and lower water bearing zones were used to calculate the groundwater elevations.



2.1.3 Sample Collection

Two groundwater sampling events were conducted this period. Groundwater samples were collected from monitoring well MW-26 and Spartan MW-2 on February 20 and 21, 2013, respectively as proposed in the January 2013 Semiannual Progress Report. The location of these wells is shown on Figure 3. Both of these wells were sampled again on May 8 (Spartan MW-2) and 9 (MW-26), 2013 to confirm the presence of trivalent chromium detected in the February 2013 groundwater samples.

Suspended solids were observed in Spartan MW-2 during the February 2013 sampling event, likely a consequence of it not having been purged or sampled since its installation in 2008. Thus, this well was redeveloped prior to sampling in May 2013, and the well development data were recorded on the well development field data sheet included as Appendix A.

In each sampling event, the groundwater in MW-26 and Spartan MW-2 was purged using low flow/low volume (micro purging) techniques (i.e., bladder pump with disposable polyethylene tubing). During purging, groundwater parameters (turbidity, dissolved oxygen [DO], pH, conductivity, oxidation-reduction potential [ORP] and temperature) were continuously monitored and recorded on the Field Data Sheets included in Appendix A. Water level measurements were also recorded during purging to ensure minimal drawdown. An effort was made to ensure that the rate of groundwater withdrawal did not exceed the rate of recharge in the wells.

The groundwater samples were collected once stabilization occurred, indicated by no increasing or decreasing trends in groundwater parameters for three successive readings and a turbidity of less than 10 nephelometric turbidity units (NTUs). When a turbidity of less than 10 NTU could not be achieved, samples were collected once stabilization occurred and after purging approximately 5 well volumes. The samples were collected directly from the pump discharge into the laboratory-prepared sample bottles, sealed, placed on ice, and delivered to a certified laboratory for analysis. Quality assurance/quality control (QA/QC) samples were also collected as follows:

- Duplicate samples were collected from MW-26 and Spartan MW-2 in February and May, respectively.
- Two equipment blanks were collected, one during each sampling event.

2.1.4 Sample Analysis

After collection, the samples were immediately placed on ice and then delivered to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia for analysis. Copies of the completed chain-of-custody forms are included in Appendix B with the laboratory reports. The samples from MW-26 and Spartan MW-2 and associated duplicate and equipment blank samples were analyzed for total and dissolved chromium using United States Environmental Protection Agency (USEPA) Method 6010B and chromium was speciated using USEPA Method SW 7196.

The stipulation letter documenting AES's certification to perform these analyses is provided in Appendix C.

2.2 Soil Assessment

As proposed in the January 2013 Semiannual Progress Report, additional samples were collected in the vicinity of boring B-4 to delineate the concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC) detected in the B-4 soil sample in November 2012. The B-4 boring was located near the northeastern corner of the storage shed in the former waste disposal area. The soil boring locations are shown on Figure 4.

2.2.1 Sample Collection

Nine soil borings were advanced in the vicinity of the November 2012 B-4 boring to vertically and horizontally delineate the concentrations of cis-1,2-DCE and VC detected above the cleanup standards in the soil sample collected from a depth of 9 to 10 feet below ground surface (bgs) . Five primary borings (B-4a and GP-1 through GP-4) and four secondary borings (GP-5 through GP-8) were installed to a depth of approximately 20 feet bgs using direct push technology (DPT) methods. The five primary borings were installed adjacent to and approximately five feet from boring B-4, and the secondary borings were installed in a ring further from B-4 to horizontally delineate the concentrations detected above the cleanup standards in B-4. In each boring, continuous soil cores were collected in 5-foot increments, logged and screened for total organic vapors using a photoionization detector (PID) and this information was recorded on the Boring Log Form which is included in Appendix A. Four samples were collected from each boring location, resulting in a total of 20 soil samples being collected from the primary borings and 16 soil samples collected from the secondary borings.

The sample with the highest PID measurement, odor and or staining within each of the following intervals was submitted for laboratory analysis. The location of the secondary borings was based on the results of the PID screening and logging of the primary borings. An equipment blank was collected by pouring distilled water over the decontaminated Geoprobe rods used during the installation of GP-8, and was analyzed for the same constituents.

After collecting soil samples, the borings were abandoned by filling the borehole with bentonite pellets. The locations of the borings were measured using a global positioning system (GPS) unit. The borings logs are included in Appendix D.

2.2.2 Sample Analysis

After collection, the samples were immediately placed on ice and then delivered to AES for analysis. The primary samples and the QA/QC samples were analyzed for cis-1,2-DCE and VC by USEPA Method 8260B. The soil samples collected from the secondary borings were placed on laboratory hold pending the results of the primary borings.

Results of Work This Period

This section presents the results of the work completed since the submittal of the last Semiannual Progress Report outlined in Section 2. Results of the groundwater level measurement, groundwater sampling of monitoring wells MW-26 and Spartan MW-2, and soil sampling in the vicinity of B-4 are discussed below.

3.1 Groundwater Elevation Data

The well construction data, top of casing elevations, and February and May 2013 groundwater level measurements are presented in Table 1. The May 2013 gauging event showed an increase of between 4 and 14 feet in the water levels in the upper and lower water bearing zones since the last gauging events in November 2012 (January 2012 for the lower water bearing wells). There has been a significant amount of rainfall at the Site since the last reporting period, which likely contributed to the higher groundwater elevations. Groundwater levels will be measured again during the next reporting period and compared to these data.

3.2 Groundwater Sampling Results

The groundwater results for the samples collected in February and May 2013 from monitoring wells MW-26 and Spartan MW-2 are summarized in Table 2. The historical groundwater results are presented in Table 3. The tables show the sample collection dates, the reported concentrations, the method detection limits where specific constituent were not detected, and the applicable delineation and cleanup standards. Figure 3 depicts the recent detections graphically. The groundwater sampling forms are included as Appendix A and the laboratory analytical reports are included as Appendix B. The results of the sample analyses are discussed below.

3.2.1 Inorganic Compounds

The groundwater samples collected from monitoring wells MW-26 and Spartan MW-2 in February and May 2013 were analyzed for total and dissolved chromium, and chromium was speciated. The samples from MW-26 and Spartan MW-2 contained trivalent chromium at concentrations of 0.0959 milligrams per liter (mg/L) and 0.0101 mg/L, respectively, during the February 2013 sampling event. These results are inconsistent with historical results in these wells where chromium was primarily present in the hexavalent state. The reduction of hexavalent chromium to trivalent chromium could have been due to the 13 foot increase in water levels in MW-26 and the elevated turbidity in Spartan MW-2. Another anomaly noted was that the dissolved chromium concentrations were very different from the total chromium concentrations, whereas typically the total and dissolved chromium concentrations are similar.

Based on these results, MW-26 and Spartan MW-2 were resampled in May 2013 to confirm the trivalent chromium concentrations. The May results indicated chromium was in hexavalent form with concentrations of total and hexavalent chromium in MW-26 at 0.0337 mg/L and 0.0307 mg/L, respectively, and less than the laboratory reporting limit of 0.010 mg/L for Spartan MW-2 for total and hexavalent chromium. The delineation and cleanup standards for total and hexavalent chromium are 0.10 mg/L and 0.01 mg/L, respectively. Therefore, delineation has been achieved to the northeast of monitoring well MW-26.



3.2.2 Quality Assurance/Quality Control Samples

No chemicals were detected in the two equipment blank samples and trip blank samples collected in February and May 2013, and the results from analysis of the two duplicate samples were similar to those from the original samples. Thus, the QA/QC samples did not indicate impact to the Site results from field or laboratory methods.

3.3 Soil Sampling Results

The results from the soil samples collected in the vicinity of B-4 are presented in Table 4, illustrated on Figure 4, and described below. The historical soil detections are shown in Table 5. The laboratory analytical reports are included in Appendix B.

3.3.1 Organics

The results of the soil samples collected from the primary borings indicated cis-1,2-DCE present above the delineation and cleanup standard of 7.0 milligram per kilogram (mg/kg) in one boring (GP-1). In the samples from this boring from depths of 4 to 5 feet bgs and 5 to 6 feet bgs, the concentration of cis-1,2-DCE was 13 mg/kg and 120 mg/kg, respectively. The cis-1,2-DCE concentration in the sample from 14 to 15 feet bgs was 0.110 mg/kg, which is well below the cleanup standard and thus cis-1,2-DCE is delineated vertically in this boring. The remaining primary samples analyzed were all less than the delineation and cleanup standards.

Based on the GP-1 results, two samples from the secondary boring to the north, GP-6, at depths similar to those in which the cleanup standard was exceeded, were removed from laboratory hold and were analyzed to delineate cis-1,2-DCE and VC to the north. The results for these GP-6 samples, collected at 2 to 3 feet bgs and 8 to 9 feet bgs, indicated concentrations of cis-1,2-DCE and VC below the delineation and cleanup standards. Therefore, horizontal and vertical delineation has been achieved in the B-4 area and the remaining secondary boring samples were not analyzed.

3.3.2 Quality Assurance/Quality Control Samples

No chemicals were detected in the equipment blank or trip blank samples.

Updated Conceptual Site Model

This section presents the updated Conceptual Site Model (CSM) developed for the Site in order to facilitate development of the remedial action objectives for the Site. Also discussed in this section is a fate and transport model that will be used to help demonstrate compliance with the Site cleanup standards under the VRP.

4.1 Elements of the Conceptual Site Model

A three-dimensional CSM was developed for the VRP Application to illustrate the approximate extent of volatile organic compounds (VOCs) and inorganics in the subsurface, and the potential exposure pathways and receptors at the Site. Figures 5 and 6 illustrate plan view and profile diagrams of the CSM, respectively, updated based on the results of the sampling completed during this reporting period.

4.1.1 Ground Surface Features

The Site topography is relatively flat with elevations ranging from 191 to 204 feet above mean sea level (amsl). Stormwater run-off flows primarily towards the intermittent drainage ditch that runs in a westerly direction from north of the former disposal area along the tree line, to the western property boundary. The ditch ends in an on-Site intermittent detention basin. The intermittent drainage ditch and detention basin are normally dry, except following significant rain events. The drainage ditch also receives stormwater run-off from off-Site sources, including a railroad right-of-way to the west.

Soil samples collected from the intermittent ditch and detention basin in 1998, 1999, 2000, 2008, and 2009 indicated elevated concentrations of nickel and chromium. Based on the flow direction of stormwater at the Site, the metals appear to have migrated from the former waste disposal area to the drainage ditch.

4.1.2 Subsurface Features

4.1.2.1 Vadose Zone and Upper Water Bearing Zone

The upper water bearing zone consists predominantly of silty sands, sandy silts, clays and chert of the weathered limestone residuum as illustrated on Figure 6. The thickness of the unconsolidated sediments at the Site is approximately 40 to 50 feet with the thin layers of chert occurring at depths of 18 to 45 feet bgs. Beneath the chert, sediments increase in clay content with clay layers ranging from 1 to 6 feet thick. The lower boundary to this zone is the chalky limestone that occurs in the uppermost Ocala Limestone at 50 to 55 feet bgs.

Figures 5 and 6 show approximately where VOCs (MW-4 area) and inorganics (MW-11 area) are identified in the upper water bearing zone above the groundwater delineation and/or cleanup standards. According to previous reports, waste was poured or spread onto the ground surface in the former waste disposal area. The VOCs and inorganics released at the ground surface would be expected to migrate vertically, under the influence of gravity, with some horizontal spreading with depth through the unsaturated zone and into the saturated zone.



4.1.2.2 Semi-Confining Unit

Between the depths of approximately 50 to 60 feet bgs, a chalky limestone occurs that grades with depth to increasing cementation and induration and decreasing permeability. This layer is laterally continuous across the Site and is interpreted to be a hydraulic boundary to the lower water bearing zone encountered at about 60 feet bgs. However, based on the hydraulic properties (i.e., vertical groundwater velocity, vertical gradient and vertical hydraulic conductivity) of the semi-confining unit and concentrations of VOCs and inorganics in the lower water bearing zone, vertical leakage occurs through the chalky limestone from the upper water bearing zone to the lower water bearing zone.

4.1.2.3 Lower Water Bearing Zone

At approximately 60 feet bgs, the chalky limestone increases in competency and becomes a porous and permeable fossiliferous limestone of the Ocala Limestone that extends to a depth of approximately 170 feet bgs. This unit, the Upper Floridan aquifer, is a principal water supply aquifer and previously served to supply irrigation and fire water to t Site. The Upper Floridan aquifer is confined above and below. The upper confining zone is the chalky limestone as described above, and the lower confining zone is the calcareous clayey Lisbon formation.

Concentrations of VOCs (MW-15 area) and inorganics (MW-24 area) are present in the lower water bearing zone; specifically, the upper portion of the permeable fossiliferous limestone as seen in wells MW-8 and MW-15 at depths of approximately 70 and 80 feet bgs, respectively.

4.1.3 Contaminant Fate and Transport

Moderate to low concentrations of TCE, cis-1,2-DCE, and VC continue to be detected in monitoring wells immediately downgradient of the source area within the upper water bearing zone in MW-4. As described in the February 2012 VRP Application, preliminary modeling using Biochlor®, a one-dimensional axial transport model, has been conducted to evaluate potential COC migration from this area and to provide a preliminary understanding of the fate and transport of the remaining VOCs observed in groundwater. The preliminary modeling demonstrated that VOC concentrations will continue to decline over time and that the current groundwater plume will continue to shrink.

Additionally, a limited interim remedial action consisting of injection of zero valent iron (ZVI) within the upper water bearing zone was conducted in 2003. The interim action created a barrier zone of accelerated attenuation downgradient of MW-4. The barrier has most likely resulted in the decrease in VOC concentrations observed in the remaining downgradient monitoring wells.

4.2 Receptors and Exposure Pathways

The potential exposure pathways for human and ecological receptors are detailed in the February 2012 Revised VRP Application and the Semiannual Progress Report dated January 30, 2013.

Status and Future Work

The Group will meet the milestones as required by EPD in their July 30, 2012 letter approving their application to the VRP. Specifically:

- Horizontal delineation on-Site and off-Site
- Vertical delineation
- Remediation, where necessary.

The current status of the Site groundwater relative to VRP delineation and cleanup criteria is discussed below. Near-term steps toward meeting project goals are discussed below. The updated milestone schedule for this work is presented on Figure 6.

5.1 Delineation Status

5.1.1 On-Site Horizontal and Vertical Soil Delineation

Delineation soil sampling conducted in 2005 and 2012 indicated that soil in the B-4 area exceeded the cis-1,2-DCE and VC delineation standards. These chemicals have now been horizontally and vertically delineated based on additional soil sampling conducted in this area in February 2013.

5.1.2 On-Site Horizontal and Vertical Groundwater Delineation

Based on previous groundwater sample results, total and hexavalent chromium were not delineated north of monitoring well MW-26. Therefore, off-Site Spartan well MW-2 was sampled in February and May 2013, and the May 2013 concentrations of total and hexavalent chromium in Spartan well MW-2 were less than the laboratory reporting limit of 0.010 mg/L. Thus, horizontal groundwater delineation has been achieved for total and hexavalent chromium. VOCs were previously delineated on-Site.

5.1.3 Off-Site Horizontal Groundwater Delineation

As discussed above, the results from the groundwater sample collected from off-site monitoring well Spartan MW-2 were less than the delineation and cleanup standard for total and hexavalent chromium. Therefore, off-Site horizontal delineation has been achieved.

5.1.4 Vertical Groundwater Delineation

Vertical delineation has been achieved in the lower water bearing zone in the vicinity of monitoring well MW-26 as total and hexavalent chromium concentrations in this well is less than the delineation standard. In addition, vertical delineation is provided by the absence of total chromium in monitoring well MW-8.

5.2 Status Relative to Cleanup Goals

5.2.1 Groundwater

Total and hexavalent chromium concentrations in monitoring wells MW-24 and MW-26 (hexavalent only) currently exceed the cleanup standards. The groundwater concentrations in MW-4 exceed the cleanup standard for cis-1,2-DCE, TCE, and VC.



5.2.2 Soil

The concentrations of the soil samples collected at B-4 and GP-1 currently exceed the cleanup standard for cis-1,2-DCE and VC (B-4 only).

5.3 Future Work

As total and hexavalent chromium concentrations in the groundwater in monitoring wells MW-24 and MW-26 (hexavalent only) currently exceed the cleanup standards, remedial strategies will be evaluated during the next reporting period for the groundwater in this area.

The groundwater concentrations in MW-4 that exceed the cleanup standards for cis-1,2-DCE, TCE, and VC will be addressed through fate and transport modeling and a uniform environmental covenant (UEC) to restrict the use of groundwater. As discussed in the January 2013 Semiannual Progress Report, the point of demonstration (POD) wells for the groundwater impact in the MW-4 area will be monitoring wells MW-13, MW-14, MW-18, and MW-19. Two rounds of water levels will be collected from the lower and upper water bearing zone wells over the next reporting period to develop potentiometric surface maps and confirm the POD wells. In addition, as discussed above, a UEC will be executed to restrict the use of groundwater.

During the next reporting period, BC will evaluate options to bring the soil in the vicinity of B-4 and GP-1 into compliance with the cleanup standards for cis-1,2-DCE and VC (B-4 only). The concentrations of cis-1,2-DCE and VC in the subsurface soil in borings B-4 and GP-1 (cis-1,2-DCE only) exceed the soil cleanup standards currently developed for the Site using certain default assumptions. Site-specific information and Biochlor modeling will be used to determine if the maximum concentrations left in soil will result in exceedances of the applicable risk reduction standards at the point of compliance or unacceptable health risks to potential receptors. For this Site, the point of compliance is the property boundary as no groundwater water wells have been or will be installed on-Site. A commercial/industrial worker, which was used to develop the default soil cleanup standards, would not be likely to have contact with the impacted soil as it is below 2 feet bgs; however, a construction worker could. Thus, exposure assumptions applicable to a construction worker will be used to determine the potential for unacceptable health risks. Additionally, groundwater samples will be collected at MW-4 twice during the next reporting period for VOC analysis to confirm the accuracy of the Biochlor model.

5.4 Schedule

The updated milestone schedule is presented on Figure 7.

Engineer's Services this Period

This section presents a summary of the professional engineer's work on this project since the last submittal to the EPD. Table 6 summarizes the hours charged and the services BC's professional engineer for this project provided since the submittal of the last Semiannual Progress Report on January 30, 2013.



Limitations

This document was prepared solely for Brunswick Corporation, Albany Sport, Co., and Albany Partners, LLC (the Group) in accordance with professional standards at the time the services were performed and in accordance with the contracts between the Group and Brown and Caldwell dated January 7, 2013 and March 25, 2013. This document is governed by the specific scope of work authorized by the Group; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by the Group and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

This document sets forth the results of certain services performed by Brown and Caldwell with respect to the property or facilities described therein (the Property). The Group recognizes and acknowledges that these services were designed and performed within various limitations, including budget and time constraints. These services were not designed or intended to determine the existence and nature of all possible environmental risks (which term shall include the presence or suspected or potential presence of any hazardous waste or hazardous substance, as defined under any applicable law or regulation, or any other actual or potential environmental problems or liabilities) affecting the Property. The nature of environmental risks is such that no amount of additional inspection and testing could determine as a matter of certainty that all environmental risks affecting the Property had been identified. Accordingly, THIS DOCUMENT DOES NOT PURPORT TO DESCRIBE ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY, NOR WILL ANY ADDITIONAL TESTING OR INSPECTION RECOMMENDED OR OTHERWISE REFERRED TO IN THIS DOCUMENT NECESSARILY IDENTIFY ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY.

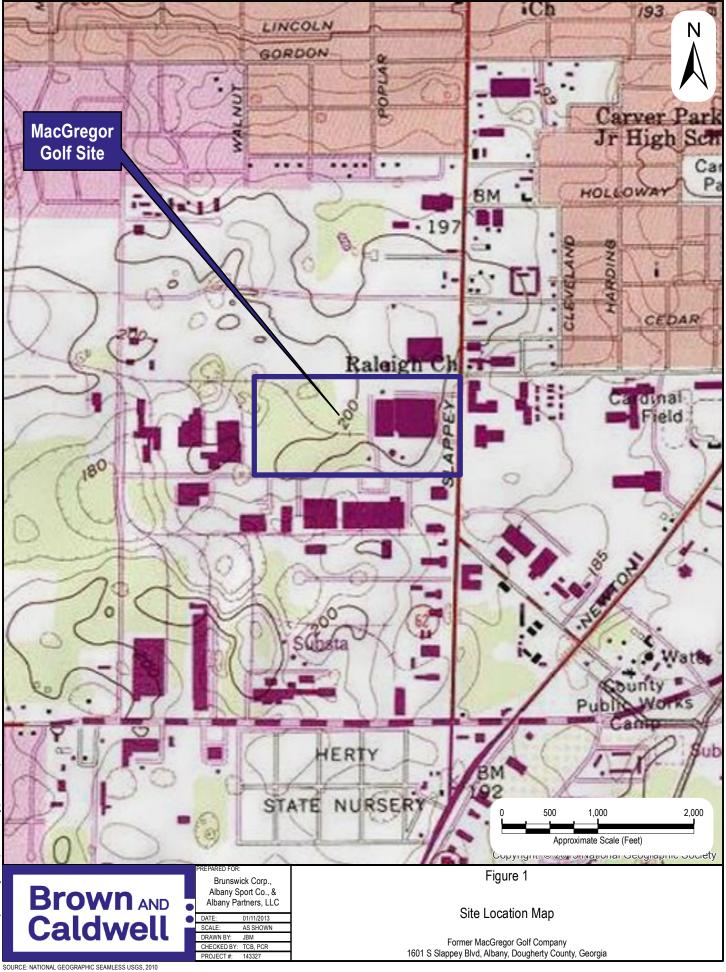
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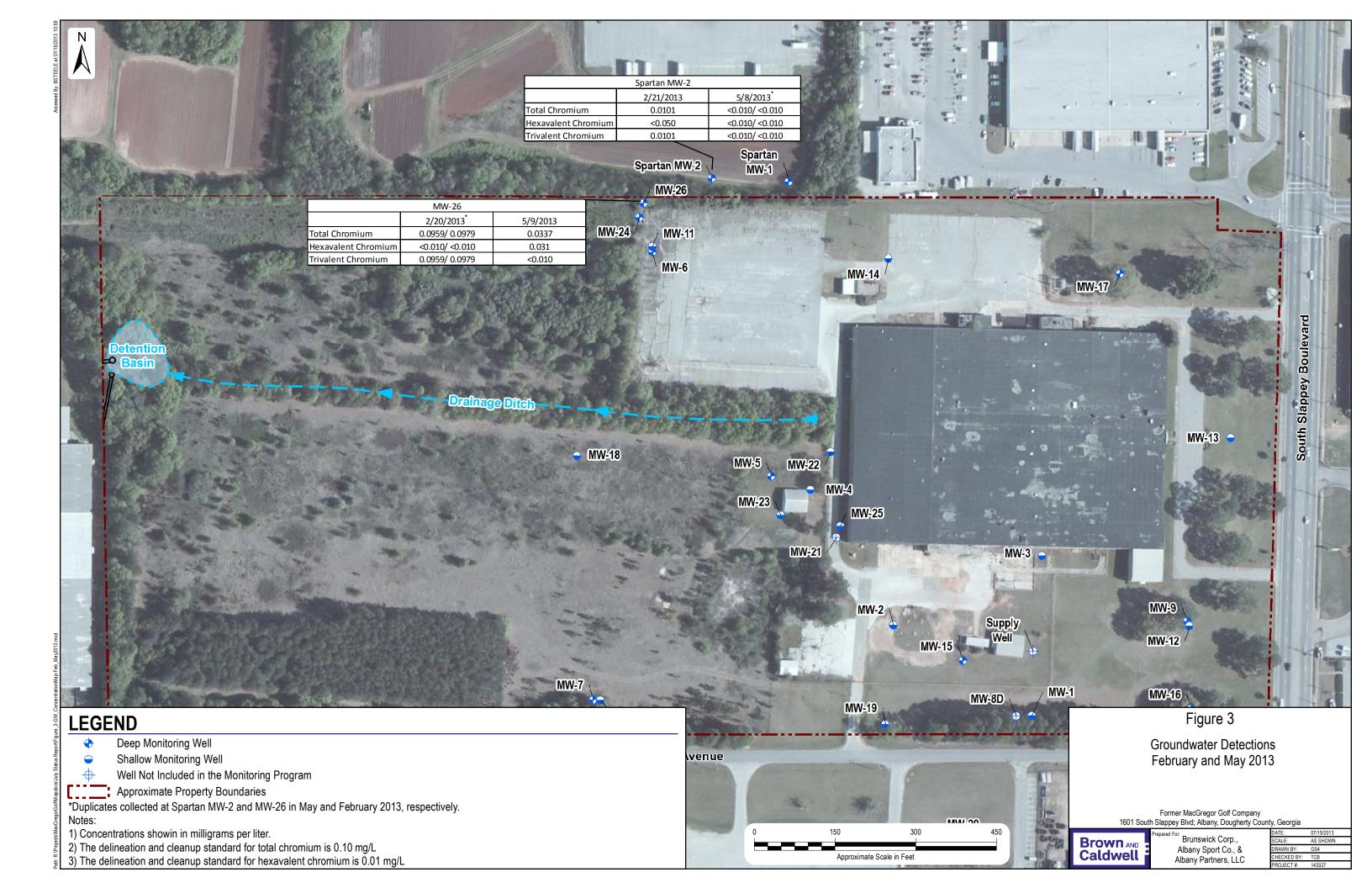
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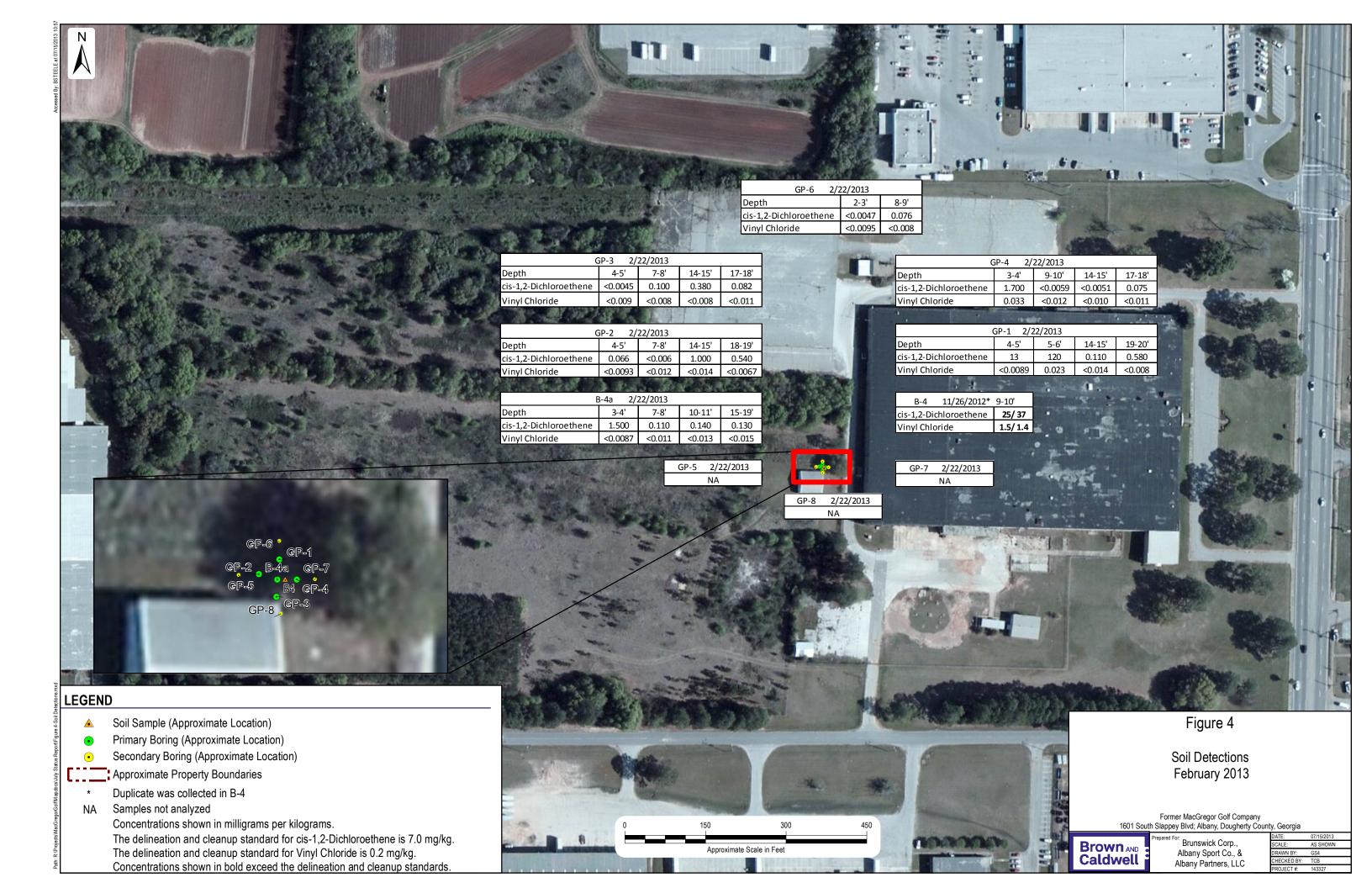
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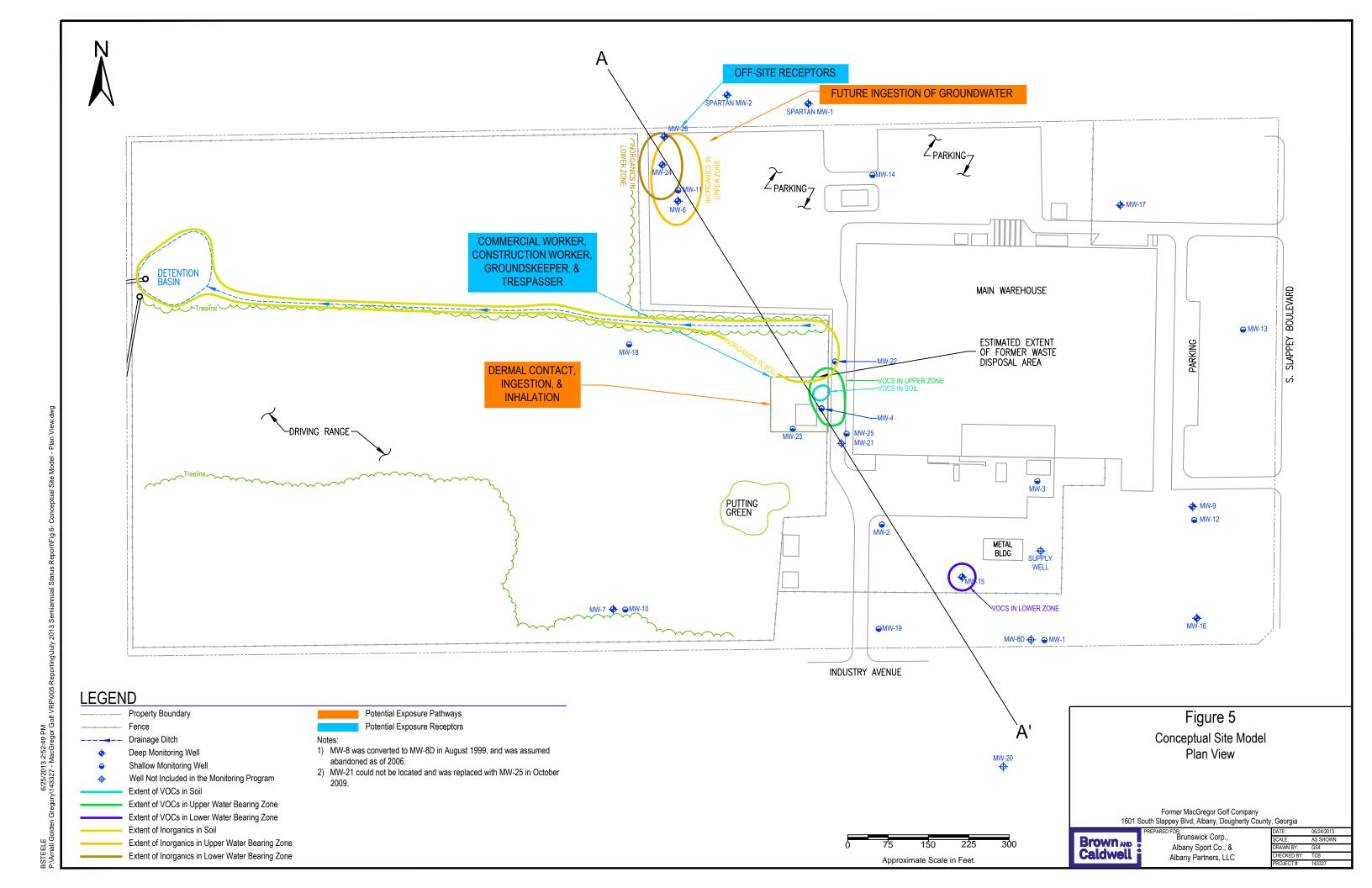


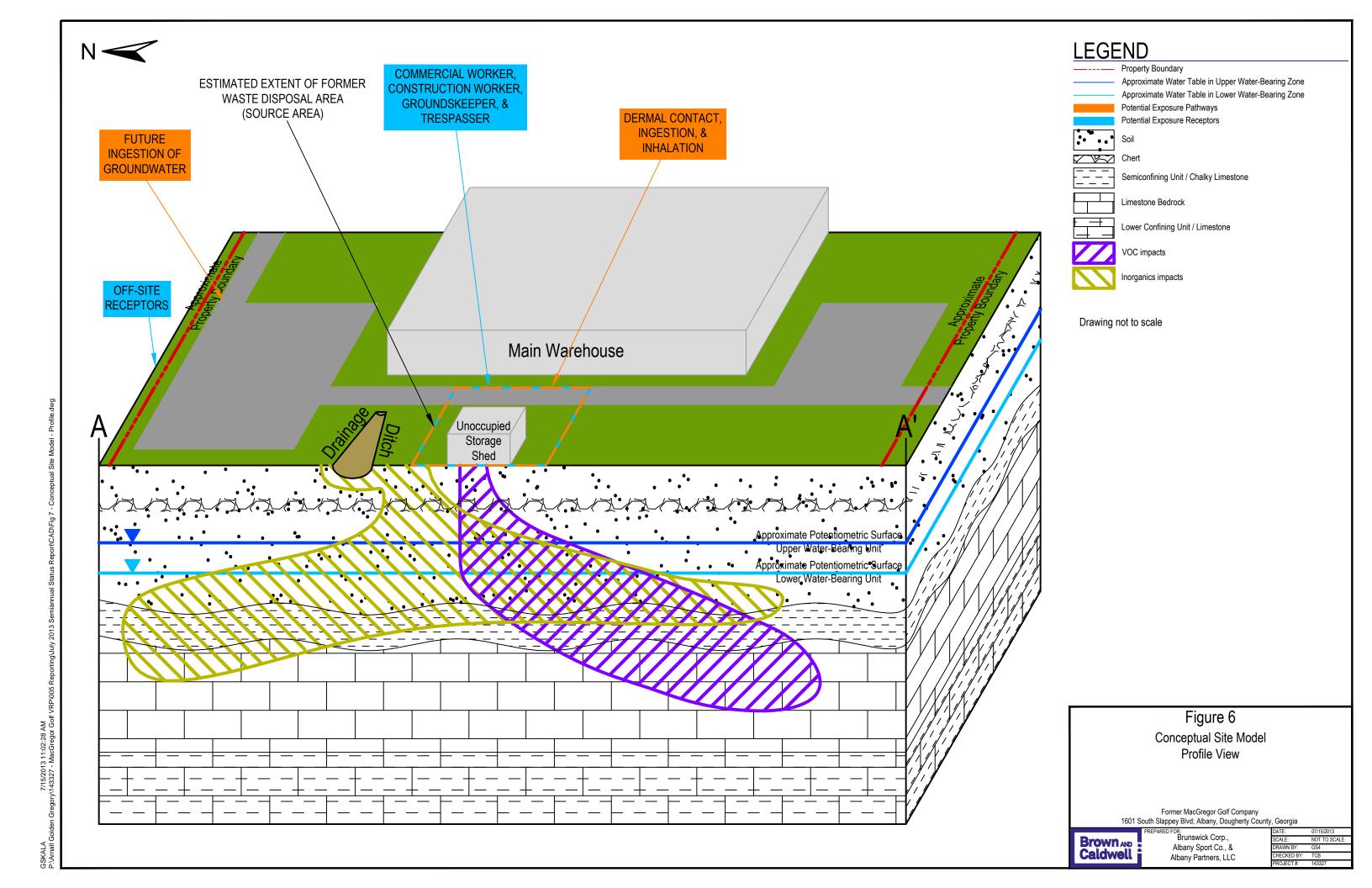












								re 7. Updat ormer MacG	ed Mileston regor Golf (e 												
									ny, Georgia														
Projected Completion Year 1 Year 2 Year 3 Year 4											Yea	Year 5											
ID	Task Name	Date	Completion Date	20)12		20	13			20	14			2015					16		2017	
		Duto		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Enrollment in VRP		July 30, 2012																				
2	Submittal of Preliminary Cost Estimate for Implementation of Remediation & Continuing Actions, and Financial Assurance Demonstration	Within 60 days of Enrollment ^a	March 13, 2013	X	X	X																	
3	Monthly Groundwater Level Measurements	Within 3 Months of Enrollment	November 6, 2012	\times	X																		
4	Horizontal Delineation of Site COCs (on accessible property)	Within 12 Months of Enrollment	November 29, 2012	\times	\times																		
5	Submittal of Semiannual Status Report with Updated CSM	Within 6 Months of Enrollment	January 30, 2013		\times																		
h	Horizontal Delineation of Site COCs (on property previously inaccessible)	Within 12 Months of Enrollment	May 31, 2013			\times	\times																
7	Submittal of Semiannual Status Report with Updated CSM	Within 12 Months of Enrollment	July 30, 2013				\times																
8	Vertical Delineation of Site COCs	Within 18 Months of Enrollment																					
9	Submittal of Semiannual Status Report with Updated CSM	Within 18 Months of Enrollment																					
	Submittal of Semiannual Status Report with Final Remediation Plan and Updated CSM	Within 24 Months of Enrollment																					
12	Active remediation, if necessary	Within 30 Months of Enrollment																					
13	Submittal of Semiannual Status Report with Updated CSM	Within 30 Months of Enrollment																					
15	Submittal of the Compliance Status Report under the VRP with Certifications	Within 36 Months of Enrollment																					

Indicates due date indicated on VRP Application Form.

^a - Due date for this task was extended per EPD's approval.

Indicates task accomplished.

On-site Horizontal Off-site Horizontal Vertical Delineation, Delineation Delineation Final Remediation Plan, & Prelim. Cost Estimate

CSR Submittal to VRP with Certifications

Table 1. Well Construction Data and May 6, 2013 Groundwater Elevations Former MacGregor Golf Company

Albany, Georgia

					, acorgia			F-h00	./04_0040	Marric	0010
l	Water	Northing	Easting	a	Screened	Open Hole	Top of Casing		0/21, 2013		2013
	Bearing	(Feet - Georgia West	(Feet - Georgia West		Intervala	Interval ^a	Elevation ^b	•	Groundwater		Groundwater
Date	Unit		-	(ft)					Elevation ^b (ft)		Elevation ^b (ft)
		·	<i>'</i>			(-4)	(-4	(ft)		(ft)	
I I			I I				T				
, ,											161.30
											160.99
· ' '											161.37
· ' '											161.95
											158.45
	Upper										162.98
	Upper										162.63
10/22/1998	Upper	566566.74									161.53
10/20/1998	Upper	566899.03	2292756.18	49.71	34.80-49.80	NA	196.99	NM	NM	34.93	162.06
6/17/1999	Upper	566533.98	2292176.82	43.70	28.8-43.8	NA	196.49	NM	NM	33.98	162.51
6/17/1999	Upper	566035.83	2292750.34	44.12	29-44	NA	193.40	NM	NM	32.37	161.03
3/11/2003	Upper	NM	NM	38.61	28.61-38.61	NA	196.80	NM	NM	NM	NM
3/11/2003	Upper	566540.86	2292649.02	45.69	35.4-45.4	NA	196.89	35.31	161.58	34.84	162.05
3/11/2003	Upper	566423.91	2292556.49	48.10	37.95-47.95	NA	199.73	NM	NM	38.23	161.50
10/21/2009	Upper	566402.83	2292666.80	39.16	29-39	NA	195.82	35.29	160.53	34.62	161.20
				Lower Wate	er Bearing Zone						
7/23/1998	Lower	566495.97	2292539.09	60.50	NA	60-73	199.89	NM	NM	42.65	157.24
7/25/1998	Lower	566911.71	2292317.29	60.13	NA	60-73	200.14	NM	NM	43.10	157.04
7/22/1998	Lower	566080.91	2292207.62	69.35	60-70	NA	194.22	NM	NM	36.73	157.49
8/17/1999	Lower	NM	NM	207.50	197.3-207.3	NA	198.00	NM	NM	NM	NM
7/20/1998	Lower	566227.03	2293312.05	69.28	NA	58.5-73.5	194.68	NM	NM	38.08	156.60
10/23/1998	Lower	566153.85	2292894.90	75.38	65.70-75.70	NA	199.23	NM	NM	42.28	156.95
10/21/1998	Lower	566065.57	2293320.44	75.47	64.70-74.70	NA	193.61	NM	NM	36.90	156.71
6/17/1999	Lower	566871.51	2293186.97	73.81	66-76	NA	198.73	NM	NM	42.94	155.79
8/14/1999	Lower	NM	NM	70.00	60-70	NA	193.31	NM	NM	NM	NM
2/8/2008	Lower	566975.84	2292293.48	58.75	50-60	NA	200.39	NM	NM	43.18	157.21
11/26/2012	Lower	567002.52	2292301.47	62.20	52.20-62.20	NA	200.90	41.40	159.50	43.35	157.55
11/10/2008	Lower	NM	NM	68.5	52-67	NA	206.37	NM	NM	49.22	157.15
11/10/2008	Lower	NM	NM	65.0	49.5-64.5	NA	205.78	47.43	158.35	48.30	157.48
1958	Lower	NM	NM	168.0	NA	NA	NM	NM	NM	NM	NM
	6/17/1999 6/17/1999 3/11/2003 3/11/2003 3/11/2003 10/21/2009 7/23/1998 7/25/1998 7/22/1998 8/17/1999 7/20/1998 10/23/1998 10/21/1998 6/17/1999 8/14/1999 2/8/2008 11/26/2012 11/10/2008	Well Completion Date Bearing Unit 6/28/1995 Upper 6/28/1995 Upper 6/29/1995 Upper 6/29/1995 Upper 6/29/1995 Upper 7/15/1998 Upper 7/15/1998 Upper 7/16/1998 Upper 10/20/1998 Upper 6/17/1999 Upper 6/17/1999 Upper 3/11/2003 Upper 3/11/2003 Upper 10/21/2009 Upper 7/23/1998 Lower 7/25/1998 Lower 7/20/1998 Lower 10/23/1998 Lower 10/23/1998 Lower 10/21/1998 Lower 6/17/1999 Lower 8/14/1999 Lower 2/8/2008 Lower 11/26/2012 Lower 11/10/2008 Lower	Well Completion Date Bearing Unit (Feet - Georgia West State Plane NAD83) 6/28/1995 Upper 566051.98 6/28/1995 Upper 566220.01 6/29/1995 Upper 566220.01 6/29/1995 Upper 566348.21 6/29/1995 Upper 566080.73 7/15/1998 Upper 566921.91 7/16/1998 Upper 566218.48 10/22/1998 Upper 566566.74 10/20/1998 Upper 566899.03 6/17/1999 Upper 566533.98 6/17/1999 Upper 566533.98 6/17/1999 Upper 566540.86 3/11/2003 Upper 566423.91 10/21/2009 Upper 566495.97 7/25/1998 Lower 566495.97 7/25/1998 Lower 566080.91 8/17/1999 Lower 566227.03 10/23/1998 Lower 56655.57 6/17/1999 Lower 566871.51 8/14/1999 Lower 56	Well Completion Date Bearing Unit (Feet - Georgia West State Plane NAD83) (Feet - Georgia West State Plane NAD83) 6/28/1995 Upper 566051.98 2293023.36 6/28/1995 Upper 566220.01 2292765.44 6/29/1995 Upper 566348.21 2293042.11 6/29/1995 Upper 566470.82 2292611.54 7/15/1998 Upper 566080.73 2292221.58 7/15/1998 Upper 566921.91 2292317.31 7/16/1998 Upper 566566.74 2293392.86 10/20/1998 Upper 566566.74 2293392.86 10/20/1998 Upper 5665899.03 2292756.18 6/17/1999 Upper 566533.98 2292176.82 6/17/1999 Upper 566540.86 2292649.02 3/11/2003 Upper 566540.86 2292649.02 3/11/2003 Upper 566495.97 2292556.49 10/21/2009 Upper 566495.97 2292539.09 7/22/1998 Lower 56605.57 229331	Well Completion Date Water Bearing Unit Northing (Feet - Georgia West State Plane NAD83) Easting (Feet - Georgia West (ft)) Total Depth a (ft) 6/28/1995 Upper 566051.98 2293023.36 45.88 6/28/1995 Upper 566220.01 2292765.44 40.19 6/29/1995 Upper 566348.21 2293042.11 46.33 6/29/1995 Upper 566470.82 2292611.54 46.96 7/15/1998 Upper 566800.73 2292221.58 48.37 7/15/1998 Upper 566921.91 2292317.31 48.30 7/16/1998 Upper 566218.48 2293315.55 45.28 10/22/1998 Upper 566566.74 2293392.86 50.38 10/20/1998 Upper 566899.03 2292756.18 49.71 6/17/1999 Upper 56633.98 2292176.82 43.70 6/17/1999 Upper 566503.83 2292750.34 44.12 3/11/2003 Upper 566403.83 2292649.02 45.69 3/11/2000 </td <td>Well Completion Date Water Bearing Unit Northing (Feet - Georgia West State Plane NAD83) Easting (Feet - Georgia West State Plane NAD83) Total Depth (ft) Screened Interval (ft) 6/28/1995 Upper 566051.98 2293023.36 45.88 33.5-48.5 6/28/1995 Upper 566220.01 2292765.44 40.19 25-40 6/29/1995 Upper 566348.21 2293042.11 46.33 32.50-47.50 6/29/1995 Upper 566080.73 2292221.58 48.37 33.04-83.0 7/15/1998 Upper 566080.73 2292221.58 48.37 33.04-83.0 7/15/1998 Upper 566921.91 2292317.31 48.30 33-48 7/16/1998 Upper 566921.84 2293315.55 45.28 35-50 10/22/1998 Upper 566566.74 2293392.86 50.38 35-50 10/20/1998 Upper 566539.93 2292756.18 49.71 34.80-49.80 6/17/1999 Upper 566350.83 2292750.34 44.12 29-44 <</td> <td>Well Completion Date Water Bearing Unit Northing (Feet - Georgia West) (Fee</td> <td>Well Completion Date Water Bearing Unit Northing (Feet - Georgia West State Plane NAD83) Easting (Feet - Georgia West State Plane NAD83) Total Depths (ft) Screened Interval (ft) Open Hole Interval (ft) Top of Casing Elevation (ft) Upper Bearing Zone 6/28/1995 Upper S66220.01 2293765.44 40.19 25-40 NA 196.54 6/29/1995 Upper S66348.21 2293042.11 46.33 32.50-47.50 NA 198.41 6/29/1995 Upper S66340.82 22922611.54 46.96 28-41.50 NA 198.43 7/15/1998 Upper S66921.91 2292317.31 48.30 33-48 NA 193.75 7/16/1998 Upper S66218.48 2293315.55 45.28 35-50 NA 194.70 10/22/1998 Upper S66656.74 2293392.86 50.38 35-50 NA 196.48 10/20/1998 Upper S66653.98 2292756.18 49.71 34.80-49.80 NA 196.49 6/17/1999 Upper S66630.83 2292756.48 49.71 34.80-49.80 NA 196.49</td> <td> Well Completion Date Water Bearing Unit Water Bearing Unit Water Plane NAD83 State Plane NAD83 Water Plane NAD83 Water</td> <td> Well Completion Water Bearing Unit State Plane NAD83 State Pl</td> <td> Water Bearing Greet - Georgia West State Plane NADB3 State Pl</td>	Well Completion Date Water Bearing Unit Northing (Feet - Georgia West State Plane NAD83) Easting (Feet - Georgia West State Plane NAD83) Total Depth (ft) Screened Interval (ft) 6/28/1995 Upper 566051.98 2293023.36 45.88 33.5-48.5 6/28/1995 Upper 566220.01 2292765.44 40.19 25-40 6/29/1995 Upper 566348.21 2293042.11 46.33 32.50-47.50 6/29/1995 Upper 566080.73 2292221.58 48.37 33.04-83.0 7/15/1998 Upper 566080.73 2292221.58 48.37 33.04-83.0 7/15/1998 Upper 566921.91 2292317.31 48.30 33-48 7/16/1998 Upper 566921.84 2293315.55 45.28 35-50 10/22/1998 Upper 566566.74 2293392.86 50.38 35-50 10/20/1998 Upper 566539.93 2292756.18 49.71 34.80-49.80 6/17/1999 Upper 566350.83 2292750.34 44.12 29-44 <	Well Completion Date Water Bearing Unit Northing (Feet - Georgia West) (Fee	Well Completion Date Water Bearing Unit Northing (Feet - Georgia West State Plane NAD83) Easting (Feet - Georgia West State Plane NAD83) Total Depths (ft) Screened Interval (ft) Open Hole Interval (ft) Top of Casing Elevation (ft) Upper Bearing Zone 6/28/1995 Upper S66220.01 2293765.44 40.19 25-40 NA 196.54 6/29/1995 Upper S66348.21 2293042.11 46.33 32.50-47.50 NA 198.41 6/29/1995 Upper S66340.82 22922611.54 46.96 28-41.50 NA 198.43 7/15/1998 Upper S66921.91 2292317.31 48.30 33-48 NA 193.75 7/16/1998 Upper S66218.48 2293315.55 45.28 35-50 NA 194.70 10/22/1998 Upper S66656.74 2293392.86 50.38 35-50 NA 196.48 10/20/1998 Upper S66653.98 2292756.18 49.71 34.80-49.80 NA 196.49 6/17/1999 Upper S66630.83 2292756.48 49.71 34.80-49.80 NA 196.49	Well Completion Date Water Bearing Unit Water Bearing Unit Water Plane NAD83 State Plane NAD83 Water	Well Completion Water Bearing Unit State Plane NAD83 State Pl	Water Bearing Greet - Georgia West State Plane NADB3 State Pl

^a Depth below top of casing.

NA - Not Applicable

NM - Not Measured

NAD83 - North American Datum of 1983

ft - feet



Page 1 of 1

^b Elevation is feet above mean sea level.

 $^{^{\}rm c}$ Wells not gauged or sampled as part of the monitoring program.

^d Well MW-25 replaced MW-21 in 2009.

Table 2. Recent Groundwater Detections of Site COCs Former MacGregor Golf Company Albany, Georgia

		Concentration (mg/L)							
Well ID	Sampling Date	Total	Hexavalent	Trivalent					
		Chromium	Chromium	Chromium					
GW Delineation Stan	idard	0.10	0.01	0.01					
GW Cleanup Standa	rd	0.10	0.01	153					
	2/20/2013 ^a	0.0959	< 0.010	0.0959					
MW-26	2/20/2013 Dup ^a	0.0979	< 0.010	0.0979					
	5/9/2013	0.0337	0.0307	< 0.010					
	2/21/2013 ^a	0.0101	< 0.050	0.0101					
Spartan MW-2	5/8/2013	< 0.010	< 0.010	< 0.010					
	5/8/2013 Dup	< 0.010	< 0.010	< 0.010					

mg/L - milligrams per liter

Purple Highlight - Indicates concentration is greater than delineation standard.

 $^{^{}a}$ Results indicate that chromium in these groundwater samples is in trivalent form, which is inconsistent with historical data. Regardless of the form in which chromium is present, the delineation standard of 0.01 mg/L is exceeded.

Table 3. Historical Groundwater Detections of Site COCs Former MacGregor Golf Company Albany, Georgia Inorganics: Concentration (mg/L) Organics: Concentration (mg/L) 1,1-Dichloroethene Chromiun tChrom Well ID **Sampling Date** cis-1,2-Dichloroethene Total Chromium richloroethene Chloride enes (Total) Ethylbenzene exavalent rivalent Nickel **GW Delineation Standard** 0.10 0.01 0.01 0.20 0.10 0.007 0.005 0.002 0.005 0.07 0.7 10 **GW Cleanup Standard** 0.204 0.10 0.01 153 2.04 2.04 0.58 0.038 0.0033 0.0088 0.70 10 6/30/95 0.05 NA NA NA NA <0.005 <0.005 <0.005 < 0.002 <0.002 < 0.002 <0.005 6/10/98 NA NA NA NA NA < 0.005 <0.005 < 0.005 < 0.002 <0.002 < 0.002 < 0.005 <0.01 <0.02 <0.02 7/31/98 NA NA < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 MW-1 6/30/99 NA NA NA NA 0.0017 < 0.001 < 0.001 < 0.001 <0.001 < 0.001 < 0.002 NA NA NA NA NA <0.001 8/6/99 NA < 0.001 <0.001 NA NA NA NA NA NA NA NA <0.0002 <0.0004 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 3/12/03 NA 6/30/95 0.04 NA NA NA NA < 0.005 < 0.005 <0.005 <0.002 <0.002 <0.002 <0.005 MW-2 6/10/98 NA NA NA NA NA < 0.005 0.0059 <0.005 < 0.002 < 0.002 < 0.002 < 0.005 7/31/98 < 0.01 NA NA < 0.02 < 0.02 < 0.002 0.004 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 6/30/95 <0.005 0.05 NA NA NA NA < 0.005 < 0.005 < 0.002 < 0.002 < 0.002 < 0.005 6/10/98 NA NA NA NA 0.0094 <0.005 0.005 <0.002 <0.002 <0.002 <0.005 NA MW-3 <0.01 < 0.02 0.007 <0.002 <0.002 <0.002 7/31/98 NA NA 0.03 <0.002 < 0.002 < 0.005 6/30/99 NA NA NA NA NA 0.0058 0.0019 <0.001 <0.001 <0.001 <0.001 < 0.002 NA < 0.0002 2/26/03 NA NA NA NA < 0.0002 < 0.0004 < 0.0001 < 0.0002 < 0.0003 < 0.0015 NA < 0.005 0.376 0.065 < 0.002 < 0.005 6/30/95 < 0.01 NA NA NA 1.560 < 0.002 6/10/98 NA NA NA NA NA < 0.005 2.900 0.310 < 0.002 <0.002 <0.002 <0.005 <0.02 < 0.002 < 0.005 7/29/98 0.33 NA NA 0.39 2.800 0.350 0.013 < 0.002 < 0.002 3.700 0.460 6/30/99 NA $\mathsf{N}\mathsf{A}$ NA $\mathsf{N}\mathsf{A}$ NA < 0.025 < 0.001 < 0.025 < 0.025 < 0.050 <0.0002 2/26/03 NA NA NA NA NA 2.200 0.290 0.017 < 0.0002 < 0.0003 < 0.0015 NA NA NA NA NA <0.0002 1.300 0.200 0.0034 <0.0002 <0.0003 <0.0015 5/21/03 0.0022 6/13/03 NA NA NA NA NA < 0.0002 2.200 0.190 < 0.0002 <0.0003 <0.0015 7/18/03 NA NA NA NA NA < 0.007 1.500 0.200 0.0068 <0.009 <2.300 <10.000 1.600 0.200 NA NA NA NA NA < 0.00022 0.0020 <0.00019 < 0.00032 <0.0015 8/14/03 MW-4 NA NA 0.370 2/19/04 NA NA NA < 0.007 1.800 0.013 < 0.009 < 2.300 <10.000 3/29/04 NA NA NA NA NA < 0.005 1.700 0.130 0.021 <0.005 < 0.005 < 0.015 5/19/04 NA NA NA NA NA < 0.005 0.890 0.110 0.0087 <0.005 <0.005 < 0.015 NA NA NA NA < 0.005 1.400 0.0074 <0.005 < 0.015 8/23/04 NA 0.180 <0.005 <0.01 2.83 5/30/06 NA NA NA < 0.005 1.100 0.170 0.0088 < 0.005 < 0.005 < 0.015 10/22/09 NA NA NA NA NA 0.00025 0.400 0.079 0.015 <0.00028 <0.00025 <0.00068 NA NA <0.005 7/28/10 NA NA NA < 0.005 0.690 0.200 0.025 < 0.005 < 0.015 3/31/11 NA NA NA NA NA <0.005 0.410 0.110 0.0048 < 0.005 <0.005 <0.015 NA NA NA NA 0.0725 NA NA NA NA $\mathsf{N}\mathsf{A}$ NA NA 1/11/12 11/28/12 NA 7/30/98 0.01 NA NA < 0.02 < 0.02 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 6/28/99 NA NA NA NA NA < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.002 NA NA NA NA NA < 0.001 < 0.001 < 0.001 NA NA 8/9/99 NA NA MW-5 NA NA NA NA <0.001 <0.001 <0.001 NA NA NA NA 9/3/99 NA 3/13/03 NA NA NA NA NA <0.0002 0.030 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 5/30/06 NA NA NA NA <0.02 < 0.005 <0.005 <0.005 <0.002 <0.005 <0.005 <0.015 7/30/98 0.01 NA NA <0.02 <0.02 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 MW-6 NA NA NA < 0.001 <0.001 <0.001 <0.001 < 0.002 6/28/99 NA NA < 0.001 < 0.001 2/25/03 NA NA NA NA NA <0.0002 <0.0004 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 <0.01 <0.02 <0.02 <0.002 <0.002 7/30/98 NA NA < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 MW-7 6/29/99 NA NA NA NA NA < 0.001 <0.001 <0.001 < 0.001 <0.001 <0.001 <0.002



MW-8

MW-8D

3/13/03

7/15/98

7/31/98

6/8/99

6/28/99

6/17/99

NA

NA

<0.01

NA

0.03

NA

NA

NA

NA

NA

<0.02

NA

NA

NA

< 0.0002

0.007

0.008

0.014

0.016

< 0.001

< 0.0004

<0.002

<0.002

<0.002

<0.001

< 0.001

< 0.0002

0.003

< 0.002

< 0.002

< 0.0002

< 0.001

< 0.0001

<0.002

<0.002

< 0.002

< 0.001

NA

< 0.0002

<0.002

<0.002

<0.002

<0.001

NA

< 0.0003

<0.002

< 0.002

< 0.002

< 0.001

NA

< 0.0015

<0.005

<0.005

< 0.005

< 0.002

NA

Table 3. Historical Groundwater Detections of Site COCs Former MacGregor Golf Company

Albany, Georgia Inorganics: Concentration (mg/L) Organics: Concentration (mg/L) 1,1-Dichloroethene Chromiun tChrom Well ID **Sampling Date** cis-1,2-Dichloroethene Total Chromium richloroethene Chloride enes (Total) Ethylbenzene rivalent Nickel **GW Delineation Standard** 0.10 0.01 0.01 0.20 0.10 0.007 0.005 0.002 0.005 0.07 0.7 10 **GW Cleanup Standard** 0.204 0.10 0.01 153 2.04 2.04 0.58 0.038 0.0033 0.0088 0.70 10 7/29/98 <0.01 NA NA < 0.02 <0.02 <0.002 <0.002 < 0.002 < 0.002 <0.002 < 0.002 <0.005 6/28/99 NA NA NA NA NA < 0.001 <0.001 < 0.001 <0.001 <0.001 < 0.001 <0.002 MW-9 8/6/99 NA NA NA NA NA < 0.001 < 0.001 < 0.001 NA NA NA NA NA NA NA NA < 0.0002 < 0.0004 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 2/25/03 NA NA NA 2/21/08 NA NA NA < 0.007 NA NA NA NA NA NA 0.01 NA < 0.02 <0.02 <0.002 <0.002 <0.002 <0.002 <0.002 < 0.005 7/29/98 NA < 0.002 MW-10 6/29/99 NA NA NA NA NA < 0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 3/13/03 NA NA NA NA NA < 0.0002 < 0.0004 < 0.0002 <0.0001 <0.0002 <0.0003 <0.0015 7/30/98 0.04 NA NA < 0.02 < 0.04 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 NA NA NA NA NA < 0.001 <0.001 <0.001 < 0.001 <0.001 < 0.001 < 0.002 6/28/99 9/13/99 0.37 NA <0.0002 <0.0004 <0.0002 <0.0001 <0.0002 <0.0015 2/25/03 NA NA NA NA <0.0003 MW-11 2/21/08 0.0404 NA 10/21/09 0.025 0.030 NA NA NA NA NA NA NA 7/29/10 0.193 0.0322 NA 3/29/11 0.0285 0.0243 NA <0.02 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.005 7/30/98 < 0.01 NA NA < 0.02 6/28/99 NA NA NA $\mathsf{N}\mathsf{A}$ NA < 0.001 < 0.001 < 0.001 < 0.001 <0.001 < 0.001 < 0.002 MW-12 <0.0002 < 0.0004 <0.0001 2/25/03 NA NA NA NA NA < 0.0002 < 0.0002 < 0.0003 < 0.0015 NA NA NA NA NA < 0.005 <0.005 <0.005 <0.002 <0.005 <0.005 <0.015 7/28/10 <0.005 <0.005 <0.005 <0.005 <0.015 3/28/11 NA NA NA NA NA < 0.002 <0.005 10/26/98 NA NA NA NA NA <0.002 <0.002 < 0.002 <0.002 0.014 0.770 4.5 NA NA NA NA NA < 0.001 <0.001 <0.001 < 0.001 <0.001 <0.001 < 0.002 6/28/99 NA NA <0.0004 <0.0002 <0.0015 2/25/03 NA NA NA < 0.0002 < 0.0001 < 0.0002 <0.0003 MW-13 3/20/10 <0.01 <0.01 NA NA NA < 0.005 < 0.005 < 0.005 < 0.002 <0.005 < 0.005 < 0.015 7/28/10 <0.01 <0.01 NA NA NA < 0.005 <0.005 <0.005 < 0.002 <0.005 <0.005 < 0.015 <0.01 NA NA NA <0.005 <0.005 <0.005 < 0.002 <0.005 <0.005 3/29/11 < 0.01 < 0.015 <0.002 10/27/98 NA NA NA NA NA < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 MW-14 6/28/99 NA NA NA NA NA < 0.001 <0.001 < 0.001 < 0.001 <0.001 < 0.001 < 0.002 NA < 0.0004 <0.0002 <0.0015 2/25/03 NA NA NA NA < 0.0002 <0.0001 < 0.0002 < 0.0003 10/26/98 NA NA NA NA NA 0.057 <0.002 0.004 < 0.002 < 0.002 <0.002 <0.005 MW-15 6/30/99 NA <0.002 0.032 NA NA NA NA 0.340 < 0.002 < 0.002 < 0.002 < 0.004 2/26/03 NA NA NA NA NA 0.066 <0.0004 0.008 <0.0001 <0.0002 <0.0003 <0.0015 10/26/98 NA NA NA NA NA < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.002 < 0.005 6/29/99 NA NA NA NA NA < 0.001 < 0.001 0.0017 < 0.001 < 0.001 < 0.001 < 0.002 NA NA NA NA NA < 0.001 0.0018 0.004 NA NA 8/6/99 NA NA MW-16 NA NA NA NA <0.001 0.0012 <0.001 NA NA NA NA 9/3/99 NA 9/13/00 NA NA NA <0.01 NA < 0.001 0.0015 0.0029 < 0.001 <0.001 <0.001 <0.002 2/25/03 NA NA NA NA NA <0.0002 <0.0004 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 6/28/99 NA NA NA NA NA < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.002 MW-17 NA NA NA NA < 0.001 <0.001 <0.001 8/9/99 NA NA NA NA NA 2/25/03 NA NA NA NA NA <0.0002 <0.0004 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 NA <0.001 <0.001 <0.001 <0.002 6/26/99 NA NA NA NA < 0.001 < 0.001 < 0.001 MW-18 8/9/99 NA NA NA NA NA < 0.001 <0.001 <0.001 NA NA NA NA 9/13/99 < 0.01 NA NA NA <0.04 NA NA NA NA NA NA NA NA <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 6/28/99 NA NA NA NA 8/9/99 NA NA NA NA NA <0.001 <0.001 <0.001 NA NA NA NA MW-19 2/26/03 NA NA NA NA NA <0.0002 <0.0004 <0.0002 <0.0001 <0.0002 <0.0003 <0.0015 7/28/10 0.0117 0.0139 NA NA NA < 0.005 <0.005 <0.005 < 0.002 <0.005 <0.005 <0.015 3/29/11 < 0.01 < 0.01 NA NA NA < 0.005 < 0.005 < 0.005 < 0.002 < 0.005 < 0.005 < 0.015



Table 3. Historical Groundwater Detections of Site COCs Former MacGregor Golf Company

Albany, Georgia

			Inorganics	s: Concentra	tion (mg/L)		Organics: Concentration (mg/L)								
Well ID	Sampling Date	Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2- Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)		
GW Delineation Sta	ndard	0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10		
GW Cleanup Standa	ard	0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10		
	8/17/99	NA	NA	NA	NA	NA	0.0047	<0.001	0.0016	NA	NA	NA	NA		
MW-20	9/3/99	NA	NA	NA	NA	NA	0.0073	<0.001	<0.001	NA	NA	NA	NA		
IVIVV-20	9/13/00	NA	NA	NA	<0.01	NA	0.0085	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002		
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015		
MW-21	3/13/03	NA	NA	NA	NA	NA	<0.0002	0.030	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015		
	3/13/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	0.007	<0.0001	<0.0002	< 0.0003	<0.0015		
	5/30/06	NA	NA	NA	NA	<0.02	<0.005	0.0084	0.0090	<0.002	<0.005	<0.005	<0.015		
MW-22	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.0062	0.0053	<0.00029	<0.00028	<0.00025	<0.00068		
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.0095	0.0089	<0.002	<0.005	<0.005	<0.015		
	3/31/11	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015		
	11/28/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	3/13/03	NA	NA	NA	NA	NA	<0.0002	0.030	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015		
	5/30/06	NA	NA	NA	NA	<0.02	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015		
	2/8/08	0.33	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA	NA		
MW-23	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.0012	0.00059J	<0.00029	<0.00028	<0.00025	<0.00068		
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.0089	<0.005	<0.002	<0.005	<0.005	<0.015		
	3/29/11	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
	10/2/12	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	4/9/08	0.386	NA	NA	NA	<0.0200	NA	NA	NA	NA	NA	NA	NA		
	10/21/09	0.11	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	7/29/10	0.108	0.107	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	7/29/10 Dup	0.109	0.110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
MW-24	3/30/11	0.120	0.0945	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	1/11/12	0.153 ^b	0.125 ^b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	10/2/12	0.138 ^c	0.105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	10/2/12 Dup	0.139	0.116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.004	0.0018	<0.00029	<0.00028	<0.00025	<0.00068		
MW-25	7/28/10	NA	NA	NA	NA	NA	<0.005	0.011	0.0055	<0.002	<0.005	<0.005	<0.015		
	3/29/11	NA	NA	NA	NA	NA	<0.005	0.0083	<0.005	<0.002	<0.005	<0.005	<0.015		
	11/29/12	0.175	0.184	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	11/29/12 Dup	0.175	0.180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
MW-26	2/20/2013	0.0959	< 0.010	0.0959	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA		
= 0	2/20/2013 Dup	0.0979	< 0.010	0.0979	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	5/9/2013	0.0337	0.031	< 0.010	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	2/21/2013	0.0101	< 0.051		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
Spartan MW-2	5/8/2013	< 0.0101	< 0.010	< 0.0101	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	5/8/2013 Dup	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA NA	NA NA	NA NA	NA	NA		
	9/22/98	NA NA	NA NA	NA NA	NA NA	NA NA	0.003	<0.002	0.003	<0.002	<0.002	<0.002	<0.005		
Supply Well	6/15/99	NA NA	NA NA	NA NA	NA NA	NA NA	0.003	<0.002	0.003	<0.002	<0.002	<0.002	<0.003		
-upp.j 11011	3/12/03	NA NA	NA NA	NA NA	NA NA	NA NA	0.0011	<0.001	<0.0020	<0.001	<0.0002	<0.0003	<0.002		
DB-SW-1 (Surface Water)	10/20/09	0.0027J	NA NA	NA NA	NA NA	<0.0022	NA NA	NA	NA	NA NA	NA	NA	NA		

NA -Sample not analyzed for this parameter.

Purple Highlight - Indicates concentration is greater than delineation criteria

Orange Highlight - Indicates concentration is greater than delineation and cleanup standard



J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an estimated value

Dup - Duplicate sample

mg/L - milligrams per liter

^a MW-11 sample was highly turbid at time of sample collection; data not representative of groundwater conditions.

b MW-24 samples from 1/11/12 were highly turbid at time of sample collection. Concentrations of dissolved chromium and dissolved hexavalent chromium were 0.122 mg/L and 0.115 mg/L,

 $^{^{\}rm c}$ MW-24 samples from 10/2/12 were highly turbid at time of sample collection. Concentration of dissolved chromium in the parent and duplicate samples was 0.134 mg/L.

Table 4. Recent Soil Detections of Site COCs Former MacGregor Golf Company Albany, Georgia Organics: Concentration (mg/kg) Sample Depth Location **Sampling Date** (feet) cis-1,2-Vinyl Chloride Dichloroethene **Soil Delineation Standard** 7.0 0.2 **Soil Cleanup Standard** 7.0 0.2 11/26/12 25 1.5 B-4 9-10 1.4 11/26/2012 Dup 37 3-4 < 0.0087 1.500 2/22/13 7-8 2/22/13 0.110 < 0.011 B-4a 10-11 2/22/13 0.140 < 0.013 15-19 0.130 < 0.015 2/22/13 4-5 2/22/13 < 0.0089 13 120 5-6 2/22/13 0.023 GP-1 14-15 2/22/13 0.110 < 0.014 19-20 2/22/13 0.580 < 0.008 4-5 2/22/13 0.066 < 0.0093 7-8 < 0.006 2/22/13 < 0.012 GP-2 14-15 1.000 < 0.014 2/22/13 18-19 0.540 < 0.0067 2/22/13 4-5 2/22/13 < 0.0045 < 0.009 7-8 < 0.008 2/22/13 0.100 GP-3 14-15 2/22/13 0.380 < 0.008 17-18 2/22/13 0.082 < 0.011 3-4 2/22/13 1.700 0.033 9-10 2/22/13 < 0.0059 < 0.012 GP-4 14-15 2/22/13 < 0.0051 < 0.010 17-18 0.075 < 0.011 2/22/13 2-3 2/22/13 < 0.0047 < 0.0095 GP-6

mg/kg - milligrams per kilogram

8-9

Orange Highlight- Indicates concentration is greater than delineation and cleanup standard.

0.076

< 0.008

2/22/13

Table 5. Historical Soil Detections of Site COCs Former MacGregor Golf Company Albany, Georgia Inorganics: Concentration (mg/kg) Organics: Concentration (mg/kg) Chromium 1.2-Dichloroethen Chromium Location Sampling Date Depth Chloride ylenes (Total) (feet) Chromi lexavalent ivalent 0.7 7.0 Soil Delineation Standard 100 2.0 20 50 0.5 0.2 0.5 1,000 3.84 3,066,000 412.9 2.665 70 Soil Cleanup Standard 1.200 4.18 7.0 0.5 0.2 0.5 1.000 0-2 7/27/98 12 NA < 0.2 2.9 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 SB-1 0-2 D 7/27/98 5.3 NA NΑ < 0.2 2.6 < 0.005 0.015 < 0.005 NA NA NA < 0.005 28-30 7/27/98 6.7 NA NA < 0.2 13 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 0-2a 7/25/98 7.6 NA NA 0.2 4 < 0.005 < 0.005 < 0.005 NA NA NA 0.007 7/25/98 NA NA NA NA NA < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 0-2 SB-2 29-31 7/25/98 2.7 NA NA < 0.2 2.7 < 0.005 < 0.005 < 0.005 NA NA NA 0.005 29-31^b 7/25/98 NA NA NA NA NA < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 34-36 7/25/98 9.4 NA NA 0.4 14 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 2-4a 7/24/98 4.2 NA NA 3.7 300 < 0.005 < 0.005 < 0.005 NA NA NA 0.019 2-4 7/24/98 NA NA NA NA NΔ < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 8-10^a 7/24/98 3.8 NA NA < 0.2 620 < 0.005 < 0.005 < 0.005 NA NA NA 0.017 SB-3 8-10^b 7/24/98 NA NA NΑ NA NA < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 34-36⁶ 7/24/98 12 NA NA 0.5 23 < 0.005 1 E 0.45 E NA NA NA 0.019 34-36^b 7/25/98 NA NA NΑ NA NΑ < 0.005 0.1 0.04 NA NA NA < 0.005 0-2^a 7/25/98 530 NA 0.2 52 < 0.005 < 0.005 < 0.005 NA NA NA 0.008 0-2^b 7/25/98 NA NA NA NA NA < 0.005 < 0.005 < 0.005 NA NA NA 0.0024 E 29-31 7/25/98 1.8 NA NΑ < 0.2 < 2 < 0.005 < 0.005 < 0.005 NA NΑ NA 0.01 SR-4 29-31^t 7/25/98 NA NA NΑ NΑ NΑ < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 7/24/98 8.6 NA NA 0.3 5.2 < 0.005 < 0.005 < 0.005 NA NA NA 0.008 34-36 34-36^b 7/24/98 NA NA NA NA NΑ < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 7/18/98 4 NA NA < 0.2 < 2 < 0.005 < 0.005 < 0.005 NA NA NA 0.02 3-5 3-5^t 7/18/98 NA NA NA NA NA < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 8-10^a 7/18/98 6.1 NA NA < 0.2 <2 < 0.005 < 0.005 < 0.005 NA NA NA 0.018 MW-5 8-10^b 7/18/98 NA NA NΑ NA NΑ < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 32-34 7/18/98 < 1 NA NA < 0.2 < 2 < 0.005 < 0.005 < 0.005 NA NA NA 0.012 32-34^t 7/18/98 NA NA NΔ NA NA < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 13-15⁶ 7/21/98 13 NA NA < 0.2 < 1 < 0.005 < 0.005 < 0.005 NA NA NA 0.023 MW-6 13-15^t 7/21/98 NA NA NA NA NA < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 0-2 10/23/98 6.8 NA NA NA < 2 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 SB-5 8-10 10/23/98 5.5 NA NΑ NΑ < 2 NΑ NΑ NA NA NA NA NΑ 34-36 10/23/98 45 NA NA NA 28 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 0-2 10/23/98 650 NA NA NA 61 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 8-10 10/23/98 7.2 NA NA NA < 2 NA NA NA NA NA NA NA SB-6 20-22 10/23/98 NA NA NΑ NA NΑ < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 34-36 10/23/98 30 NA NA NA 24 < 0.005 < 0.005 < 0.005 NA NA NA < 0.005 6/24/99 0-2 9.9 NA NA < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.01 SB-7 8-10 6/24/99 7.1 NA NA < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.009 18-20 6/24/99 2.6 NA NA < 1.1 < 4.4 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0096 0-2 6/24/99 10 NA NA < 1.1 < 4.3 < 0.004 < 0.004 < 0.004 NA NA NA < 0.0084 SB-8 8-10 6/24/99 6.3 NA NΑ < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0092 18-20 6/24/99 4.7 NA NA < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0094 0-2 6/24/99 14 NA NΑ < 1.1 < 4.4 < 0.004 < 0.004 < 0.004 NA NA NA < 0.0087 SB-9 8-10 6/24/99 10 NA NA < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0094 18-20 6/24/99 2.6 NA NA < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.009 0-2 6/24/99 8.3 NA NA < 1.1 < 4.5 < 0.004 < 0.004 < 0.004 NA NΑ NA < 0.0086 SB-10 8-10 6/24/99 7.8 NA NΑ < 1.1 < 4.4 < 0.005 < 0.005 < 0.005 NA NA NA < 0.009 18-20 6/24/99 3.9 NA NA < 1.1 < 4.5 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0094 0-2 6/24/99 8.1 NA NA < 1.1 4.9 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0093 SB-11 8-10 6/24/99 12 NA NA < 1.1 < 4.5 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0094 18-20 6/24/99 8.4 NA NA < 1.1 < 4.5 < 0.004 < 0.004 < 0.004 NA NA NA < 0.0089 0-2 6/24/99 7.9 NA NA < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.01 SB-12 8-10 6/24/99 6.9 NA NΑ < 1.1 < 4.6 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0094 18-20 6/24/99 23 NA NA < 1.1 < 4.4 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0091 0-2 6/24/99 17 NA NA < 1.1 6.3 < 0.004 < 0.004 < 0.004 NA NA NA < 0.0089 SB-13 8-10 6/24/99 22 NA NA < 1.1 < 4.4 < 0.005 < 0.005 < 0.005 NA NA NA < 0.01 18-20 6/24/99 5.2 NA NA < 1.1 < 4.4 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0096 0-2 6/24/99 7.8 NA NA < 1.1 < 8.7 < 0.005 < 0.005 < 0.005 NA NA NA < 0.01 SB-14 8-10 6/24/99 9.9 NA NΑ < 1.1 < 4.3 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0093 18-20 6/24/99 9 NA NA < 1.1 < 4.4 < 0.005 < 0.005 < 0.005 NA NA NA < 0.0092



Table 5. Historical Soil Detections of Site COCs Former MacGregor Golf Company																
							bany, Georg									
				Inorganic	s: Concentratio	n (mg/kg)		Organics: Concentration (mg/kg)								
Location	Sample Depth (feet)	Sampling Date	Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)		
Soil Delinea		rd	100	2.0	2.5	20	50	0.7	7.0	0.5	0.2	0.5	70	1,000		
Soil Cleanup	0-2	6/25/99	1,200 60	3.84 NA	3,066,000 NA	412.9 <1.1	2,665 < 4.5	4.18 < 0.004	7.0 < 0.004	0.5 < 0.004	0.2 NA	0.5 NA	70 NA	1,000 < 0.0089		
SB-15	8-10	6/25/99	280	NA	NA	< 1.3	39	< 0.005	< 0.005	< 0.005	NA	NA	NA	< 0.01		
	18-20 0-2	6/25/99 6/25/99	390	NA NA	NA NA	<1.1 <1.2	< 4.2 68	< 0.005 < 0.005	< 0.005 < 0.005	< 0.005 < 0.005	NA NA	NA NA	NA NA	< 0.0094 < 0.011		
SB-16	8-10	6/25/99	15	NA NA	NA NA	<1.1	< 4.4	< 0.005	< 0.005	< 0.005	NA NA	NA NA	NA NA	< 0.0092		
	18-20	6/25/99	2.8	NA NA	NA NA	< 1.1	< 4.3	< 0.005	< 0.005	< 0.005	NA NA	NA NA	NA NA	< 0.009		
SB-17	0-2 8-10	8/5/99 8/5/99	74 88	NA NA	NA NA	NA NA	6.4 82	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	18-20	8/5/99	8.9	NA	NA	NA	22	NA	NA	NA	NA	NA	NA	NA		
SB-17A	18-20 23-25	9/3/99 9/3/99	8.7 31	NA NA	NA NA	NA NA	7.7 61	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
-	28-30	11/26/12	NA	NA	NA	NA	48.3	NA	NA	NA	NA	NA	NA	NA		
SB-18	0-2 8-10	8/5/99 8/5/99	730 29	NA NA	NA NA	NA NA	39 6.7	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	18-20	8/5/99	4.9	NA NA	NA NA	NA NA	< 4.2	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
SB-19	0-2	8/5/99	32	NA NA	NA NA	NA NA	8.6	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
20-19	8-10 18-20	8/5/99 8/5/99	9.3	NA NA	NA NA	NA NA	< 4.5 < 4	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	0-2	8/5/99	7.2	NA	NA	NA	< 8.5	NA	NA	NA	NA	NA	NA	NA		
SB-20	8-10 18-20	8/5/99 8/5/99	9.8	NA NA	NA NA	NA NA	< 4.5 < 4.7	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
-	0-2	8/5/99	5.3	NA	NA	NA	< 3.9	NA	NA	NA	NA NA	NA	NA NA	NA		
SB-21	8-10 18-20	8/5/99 8/5/99	22 12	NA NA	NA NA	NA NA	< 4.4 < 4.7	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	0-2	8/5/99	13	NA NA	NA NA	NA NA	< 3.9	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
SB-22	8-10	8/5/99	15	NA NA	NA NA	NA NA	< 4.1	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	18-20 0-2	8/5/99 8/5/99	7.5	NA NA	NA NA	NA NA	< 4.1 < 4.3	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
SB-23	8-10	8/5/99	7.8	NA	NA	NA	< 4.3	NA	NA	NA	NA	NA	NA	NA		
SB-24	18-20 0-2	8/5/99 9/13/00	9.2	NA NA	NA NA	NA NA	< 4.5 < 4.2	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
SB-25	0-2	9/13/00	190	NA	NA	NA	22	NA	NA	NA	NA	NA	NA	NA		
SB-26	0-2 0-2	9/13/00 6/16/99	170 6.6	NA NA	NA NA	NA < 1.1	18 < 4.2	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
MW-17	8-10	6/17/99	21	NA	NA	< 1.1	< 4.3	NA	NA	NA	NA	NA	NA	NA		
	18-20 0-2	6/17/99 6/16/99	5.8 16	NA NA	NA NA	< 1.1 < 1.1	< 4.4 6.2	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
MW-18	8-10	6/16/99	19	NA NA	NA NA	< 1.2	< 4.7	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	18-20 0-2	6/16/99 8/5/99	7.1	NA NA	NA NA	< 1.1 NA	< 4.4 5.4	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
MW-20	8-10	8/5/99	16	NA NA	NA NA	NA NA	< 5.1	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
	18-20	8/5/99	2.1	NA NA	NA NA	NA	< 4.2	NA < 0.0032	NA 0.0000	NA 10.0036	NA	NA 10.0026	NA 10.0026	NA 10.0026		
B-1	10-15 20-25	5/24/05 5/24/05	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.0032	0.0062 < 0.0036	< 0.0036 < 0.0036	< 0.0071 < 0.0071	< 0.0036 < 0.0036	< 0.0036 < 0.0036	< 0.0036 < 0.0036		
	35-40	5/24/05	NA	NA	NA	NA	NA	< 0.0032	0.12	0.01	< 0.0071	0.0042	< 0.0036	< 0.0036		
B-2	5-10 25-30	5/24/05 5/24/05	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.0032 < 0.0032	< 0.0036 0.11	< 0.0036 < 0.0036	< 0.0071 < 0.0071	< 0.0036 < 0.0036	< 0.0036 < 0.0036	< 0.0036 < 0.0036		
B-3	5-10	5/24/05	NA	NA	NA	NA	NA	< 0.0034	< 0.0034	< 0.0034	< 0.0069	< 0.0034	32	130		
	15-20 5-10	5/24/05 5/24/05	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.0032 0.013	0.018 11	< 0.0036 < 0.0036	< 0.0071 1.5	< 0.0036 0.0098	< 0.0036 4.00	< 0.0036 16.6		
	9-10	11/26/12	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	25	NA	1.5	NA	NA	NA		
B-4	9-10	11/26/2012 Dup	NA NA	NA NA	NA NA	NA NA	NA NA	NA 0.025	37	NA 0.00E6	1.4	NA < 0.0026	NA 0.0061	NA 0.038		
D-4	15-20 25-30	5/24/05 5/24/05	NA NA	NA NA	NA NA	NA NA	NA NA	0.025 0.025	0.32 2.1	0.0056 0.014	< 0.0071 < 0.0071	< 0.0036 < 0.0036	0.0061 0.67	0.028 3.21		
	9-10	11/26/12	NA	NA	NA	NA	NA	NA	25	NA	1.5	NA	NA	NA		
-	9-10 3-4	11/26/2012 Dup 2/22/13	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	37 1.500	NA NA	1.4 < 0.0087	NA NA	NA NA	NA NA		
B-4a	7-8	2/22/13	NA	NA	NA	NA	NA	NA	0.110	NA NA	< 0.011	NA NA	NA	NA		
<i>5</i> -ru	10-11 15-19	2/22/13 2/22/13	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	0.140 0.130	NA NA	< 0.013 < 0.015	NA NA	NA NA	NA NA		
	10-13	2/22/13	INA	INA	INA	INA	INA	INA	0.130	INA	~ 0.015	INA	INA	INA		



Table 5. Historical Soil Detections of Site COCs Former MacGregor Golf Company Albany, Georgia Inorganics: Concentration (mg/kg) Organics: Concentration (mg/kg) Chromium 1.2-Dichloroethen Chromium Location Sampling Date Depth Chloride ylenes (Total) (feet) Chromi lexavalent ivalent 2.0 0.7 7.0 1,000 Soil Delineation Standard 100 2.5 20 50 0.5 0.2 0.5 Soil Cleanup Standard 1,200 3.84 3,066,000 412.9 2.665 4.18 7.0 0.5 0.2 0.5 70 1.000 15-20 5/25/05 NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 B-5 25-30 5/25/05 NA NA NΑ NΑ NΑ < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 5-10 5/25/05 NA NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 B-6 25-30 5/25/05 NA NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 5-10 5/25/05 NA NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 B-7 15-20 5/25/05 NA NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 0-5 5/25/05 NA NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 B-8 15-20 5/25/05 NA NA NA NA NΑ < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 B-10 5-10 5/25/05 NA NA NA NA NA < 0.0032 < 0.0036 < 0.0036 < 0.0071 < 0.0036 < 0.0036 < 0.0036 0-2 2/20/08 58.60 NA NA NA 13.10 NA NA NA NA NA NA NA SB-27 2-4 2/20/08 52.90 NA NA NA 11.50 NA NA NA NA NA NA NA 0-2 2/20/08 89.60 NA NΑ NA 15.70 NA NΑ NA NA NA NA NΑ SB-28 2-4 2/20/08 49.60 NA NA NA 18.20 NA NA NA NA NA NA NA 0-2 2/20/08 133 NA NΑ NA 11.10 NA NA NA NA NA NA NΑ SB-29 2-4 2/20/08 16.70 NA NA NA < 4.34 NA NA NA NA NA NA NA SB-30 0-2 2/20/08 5.47 NA NA NA < 5.80 NA NA NA NA NA NA NA 0-2 2/20/08 NA SB-31 8-10 2/20/08 NA NA NΑ NΑ NΑ NΑ NΑ NA NA NA NA NΑ 23-25 2/20/08 < 2.20 NA NA NA < 4.41 NA NA NA NA NA NA NA SB-31 30-32 2/20/08 5.72 NA NA NA < 5.30 < 0.0095 < 0.0095 < 0.0095 < 0.0095 < 0.019 < 0.0095 < 0.0095 0-2 2/20/08 NA SB-32 8-10 2/20/08 13.00 NA NA NA < 5.32 NA NA NA NA NA NA NA 23-25 2/20/08 NA 0-2 2/20/08 NA NA NΑ < 1.08 NΑ NΑ NΑ NA NA NA NA NΑ SB-33 34-36 2/20/08 6.53 NA NA NA < 4.5 NA NA NA NA NA NA NA 40-42 2/20/08 8.70 NA NA NA < 5.73 NA NA NA NA NA NA NΔ SB-34 34-36 2/20/08 22.50 NA NA NA 7.31 NA NA NA NA NA NA NA SB-35 0-2 2/20/08 9.21 NA SB-36 0-2 4/8/08 8.56 NA NA NA < 5.14 NA NA NA NA NA NA NA SB-37 0--2 4/8/08 9.46 NA NΑ NΑ < 4.41 NΑ NΑ NA NA NA NA NΑ 0-2 4/8/08 6.39 NA NA NA < 5.06 NA NA NA NA NA NA NA SB-38 0-2 4/8/08 Dup 3.4 NA NA NA < 5.06 NA NA NA NA NA NA NA SB-39 34-36 4/8/08 12 NA NA NA < 4.60 NA NA NA NA NA NA NA 5.9 DB-S1 0-1 10/20/09 5.9 < 0.37 NA 1.3 NΑ NΑ NA NA NA NA NΑ 0-1 10/20/09 45.0 < 0.75 45.0 NA 8.0 NA NA NA NA NA NA NA DB-S2 0-1 D 10/20/09 40.0 < 0.60 40.0 NA NΑ NA NA NA NA NA NA NΑ SED-1 0-3" 2000 3300 NA NA NA 210 NA NA NA NA NA NA NA 0-3 2000 500 NA NA NA 240 NA NA NA NA NA NA NA SED-2 0-3" 2000 Dup 490° NA NA NA 270 NA NA NA NA NA NA NA SFD-3 0-1 10/20/09 1.400 < 0.36 1,400 NA NA NA NA NA NA NA NA NΑ SED-4 0-1 10/20/09 2,900 < 0.42 2,900 NA NA NA NA NA NA NA NA NA SED-5 0-1 10/20/09 2.400^d < 0.36 2.400 NΑ NΑ NΑ NΑ NΑ NA NA NA NΑ SED-6 0-1 10/20/09 880 < 0.35 880 NA NA NA NA NA NA NA NA NA 4-5 2/22/13 NA NA NA NA NA NA 13 NA < 0.0089 NA NA NA 5-6 2/22/13 NA NA NA NA NA NA 120 NA 0.023 NA NA NA GP-1 14-15 2/22/13 NA NA NΑ NΑ NΑ NΑ 0.110 NA < 0.014 NA NA NΑ 19-20 2/22/13 NA NA NA NA NA NA 0.580 NA < 0.008 NA NA NA 4-5 2/22/13 NA NA NA NA NA NA 0.066 NA < 0.0093 NA NA NA 7-8 2/22/13 NA NA NA NA NA NA < 0.006 NA < 0.012 NA NA NA GP-2 14-15 2/22/13 NA NA NA NA NA NA 1.000 NA < 0.014 NA NA NA 18-19 2/22/13 NA NA NA NA NA NA 0.540 NA < 0.0067 NA NA NA 4-5 2/22/13 NA NA NΑ NA NΑ NΑ < 0.0045 NA < 0.009 NA NA NΑ 7-8 2/22/13 NA NA NA NA NA NA 0.100 NA < 0.008 NA NA NA GP-3 14-15 2/22/13 NA NA NA NA NA NA 0.380 NA < 0.008 NA NA NΔ 17-18 2/22/13 NA NA NA NA NA NA 0.082 NA < 0.011 NA NA NA 3-4 2/22/13 NA NA NA NA NA NA 1.700 NA 0.033 NA NA NA 9-10 2/22/13 NA NA NA NA NA NA < 0.0059 NA < 0.012 NA NA NA GP-4 14-15 2/22/13 NA NA NΑ NA NΑ NΑ < 0.0051 NA < 0.010 NA NA NΑ 17-18 2/22/13 NA NA NA NA NA NA 0.075 NA < 0.011 NA NA NA



Table 5. Historical Soil Detections of Site COCs Former MacGregor Golf Company Albany, Georgia Inorganics: Concentration (mg/kg) Organics: Concentration (mg/kg) cis-1,2-Dichloroethen **Hexavalent Chromium** Trivalent Chromium Location Depth Sampling Date Total Chromium Chloride (ylenes (Total) (feet) Ethylbenzene Cyanide jų. Soil Delineation Standard 100 2.0 20 50 0.7 7.0 0.5 0.2 0.5 70 1,000 Soil Cleanup Standard 1,200 3.84 3,066,000 412.9 2,665 4.18 7.0 0.5 0.2 0.5 70 1,000 2-3 2/22/13 NA NA NA NA NA < 0.0047 NA < 0.0095 NA NA NA GP-6 2/22/13 8-9 NA NA NA NA NA NA 0.076 NA < 0.008 NA NA NA

Dup - Duplicate sample

mg/kg - milligrams per kilogram

E - Estimated (value above quantitation range)

Purple Highlight - Indicates concentration is greater than delineation criteria.

Orange Highlight - Indicates concentration is greater than delineation and cleanup standard.

NA - Sample not analyzed for this parameter.

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an estimated value.

 $^{^{\}rm a}$ Soil from lab-contaminated Encore samplers run for 8260 VOCs.

 $^{^{\}rm b}$ Soil from soil jars run for 8260 VOCs.

c The area immediately surrounding SED-1 and SED-2 was resampled in 2009. Based on the speciation of samples SED-3 through SED-6, the chromium in SED-1 and SED-2 was assumed to be in trivalent form.

 $^{^{\}rm d}$ Based on the speciation of samples SED-3 through SED-6, the chromium is in trivalent form.

Table 6. Summary of Hours Invoiced by Professional Engineer This Period Former MacGregor Golf Company Albany. Georgia

		abdily, deolgid	
Certified PE	Month	Hours Invoiced	Description of Services
	February 2013	0.00	
	March 2013	4.00	*Oversight during delineation of Site COCs. *Monitored regulatory and financial status of project.
Trish Reifenberger, P.E.	April 2013	0.75	*Monitored regulatory and financial status of project.
Georgia PE No. 20676	May 2013	1.50	*Oversight during delineation of Site COCs. *Monitored regulatory and financial status of project.
	June 2013	0.25	*Monitored regulatory and financial status of project.
	July 2013	5.75	*Review of July 2013 Semiannual Progress Report
Total Hours Invoiced this Pe	eriod	12.25	

Appendix A: Field Data Sheets



Brown AND Caldwell

B-4

SOIL BORING LOG 2-22-13

PROJECT I		MacCa	901			PAGE NUMBER:
ROJECT		A	,			DATE/TIME START: 0 \$50
LOCATION	۷:	Albany,	6a			DATE/TIME FINISH: 0930
Subcontra		Atlasi	2 21			PREPARED BY:
Drilling M		Direct	PUSh	_		SURFACE ELEV.:
Sampling			VO			SURFACE CONDS.:
Equipmer	nt Used:	PIU				JONI ACE CONDON
Depth	Percent	Sample	Soil	Blow	PID/ FID	
in	(%)	Depth Interval	Group Symbol	Counts	ppm	FIELD DESCRIPTION AND COMMENT
Feet	Recovery	,	Зуппоп		3.4	had considered
		0-1				hard comparted clay some sand
1 7 9		1-2			3.5	black itaining towards bottom
	70%	1-0				1 10000
	1010	2-4			3.6	sample 0855 3-11 feet
		2.1				J. J. Le
	80%	4-5	1		9.6	
5.0	0 - 10	Ì			H.W	at 5 feet, plastic present within
		5-6.			11.5	at 5 teet, plastic orsent within
_		7-8				Soil
F -	Ì	1 0			17.61	501, 7-8 feet transition to red clay and Sand saturated all completed
					14	Cand Calandal data
f -		17-0				Sand, Saturater, 905 Sample 7-8
		8-9			3.6	
	60	11-01	1.5	1 5	7.8	8-14 feet, sandy clay, red, sample 10-11 no plastarty 0915
10.0		VI.II			i i	complete De Olaget
- 10		11-13		-	5,4	Sample (0-1) no plastarty 0915
]	17-13			30	1000
-	1	2 11			20	Same as above
	100)	15-11			3.5	
-	100	13-11			3.3	Slight abor at 15-16 Sample
- 15.0 -		1 16			40	0120
10.0		15-10				
		16-17			3'3	Sand, yellow roler with bookin/Chest?
	100	77.18			3.7	
	100	4-19			i i	
		0 11			3,2	
	,	19-20			3.4	
	2					

61-1

SOIL BORING LOG

	ROJECT	NAME:	Maco	regol			BORING NUMBER: 1
7	OCATIO		-dal	of 8-4			DATE/TIME START: 0930
	ubcontr		Alla	5			DATE/TIME FINISH: 1000
	rilling N			ct push			PREPARED BY:
S	ampling	Method	: (ja	yp has			SURFACE ELEV.:
E	quipme	nt Used:		10			SURFACE CONDS.:
L			***				253.0
	Depth in	Percent (%)	Sample Depth	Soil Group	Blow	PľD/ FID	
	Feet	Recovery	Interval	Symbol		ppm	FIELD DESCRIPTION AND COMMENT
			0-1			3.6	Sand W/ some clay, reddish
-	_	80°	1-9			3.5	Color, very brittle, blackers towards bottom, more clay neh
h _	A A		2-3			3.8	hi hi h
- [3-4			٧.١	Vaccens towards by Hom, more clay neh
T			4-5		5.	143	4-5 sample 0940
-	· 5.0 —						· 2 3-411/18 0-140
			5-6			19.6	Black sond from son as 10 12
		90%	6-7			7.1	place sanc, fine,-grainer, kaolin:
F			_				Black sand, fine-grained, kaolin? Present, becomes more clay-sand mixture
L	· · ·		7-8			4,5	towards bottom
		J.	8-9			4,7	10 Cards Dottom
-			9-10			-	sample S-6 0950
-	10.0 —					5,1	
1			10-11			7.8	
Γ	-		11-12			80	time-grained sont w/ some
-	-	100%	12-13				Clay, natural staining, no order
	_	10010				8.8	The state of the s
			13-41			8.3	
-	-		14-19			9.2	Sample 14-15 0955
H	15.0						
-			15-10			4.1	Mcl Could sand
		lock	16-17			300	LIC glam - DI diffe
-	٦	100 10	17-15			3.3	Mcdium-granted sand,
	-			8		A A	
7	7		18-19	16.00		精體	
			(4726			4.4	14-20 11-2 1000

Brown	Caldwell

SOIL BORING LOG J-JJ-13

PROJECT	NAME:	Madre	gal			BORING NUMBER: (パーユ
PROJECT	NO.:		<u> </u>			PAGE NUMBER:
LOCATIO		Albuny				DATE/TIME START: YOLS
Subcont		Atlen				DATE/TIME FINISH: 1035 PREPARED BY: M
Drilling I	vietnoa: g Method	Direct.	Pagn	-	SURFACE ELEV.:	
	ent Used:			SURFACE CONDS.:		
Equipino		PID				
Depth	Percent	Sample	Soil	Blow	PID/	
in Feet	(%) Recovery	Depth Interval	Group Symbol	Counts	FID ppm	FIELD DESCRIPTION AND COMMENT
Teet	Recovery	0-1			1,3	
	┨.				ایا	Sandy-clay, appears to be slight
	١	1-3			1/13	black Staining, brittle
] &U	3-3			1.4	Mack Stailing, MITTIE
		3.4			1.3	Sample 4-5 1025
-		4-5			1.8	sample 15 10 as
- 5.0 -					The same of the sa	The same of the sa
		5-6			3,1	Clay tel aGft Stained War
		6-7			2.9	Seal 70
	1001	7-8			15,1	Clay til 26ft, Stained black Sand, 7-8, returns to clay-sand mixture after 8-9 ft range Sample 7-8 [030]
	1 100%	8-9			7.8	7-8
	4	,			110	59mp18 1030
40.0	1	9-10			9.6	
- 10.0 -		10-11			3.1	A SEE SECTION AND ASSESSMENT OF THE PARTY OF
		11-12			3,4	transition to sand buth
	7	l '			3,3	transition to sand with Clay, no unnetwal staining
-,	(08)	15,13				" sample 1 staining
		13-111			3.9 -	
		14-45			4.5	14-15 sample 1040
- 15.0 -	1		-		6.6	
	l. n.	15-10				Sand, towards bottom has slight green hur
	100 h	14-17			7.9	has slight arean hur
		17-19			5.3	
		18-N			9.8	18-19 Sample 1050
		19-20			7 ,1	

61-3

SOIL BORING LOG

PROJECT PROJECT LOCATIO Subcontr Drilling M Sampling Equipme	NO.: N: actor: lethod: Method	Albany Atlas Orgat : Graz			BORING NUMBER: CP-3 PAGE NUMBER: 1 DATE/TIME START: 1055 DATE/TIME FINISH: 1/30 PREPARED BY: M/ SURFACE ELEV.: SURFACE CONDS.:
Depth in Feet	Percent (%) Recovery	Sample Depth Interval	Soil Group Symbol	Blow PID/ Counts FID ppm	FIELD DESCRIPTION AND COMMENT
	60	6-1 2-3 4-5		3.4 4.0 4.0	Cray w/ some soud Some plasticity, some organic matte 4-5 range, soil turns black 4-5 sample 110
5.0	40	5-6 6-7 7-8 8-9		S.3 (2.4) 71.1 7.7 7.3	Sand rich clay, black Staining in 7-8 indervel, transitions to mode 3-8 1120
- 15.0		10-11 11-12 12-13 13-14		8.0 10.3 10.1 11.3	Sanz IVI Somo Clay, some lenolar
15.0	(CP)	15-16 16-17 17-16 18-19		12,3	Kaelin More prosent within, sant slight clay, herd, non-plastic 17-16

PROJEC	T NAME:	MacGr	rgos			BORING NUMBER: GT-Y PAGE NUMBER:
ROJEC		A1.				17(62)(0)(10)
LOCATI		Albany				DATE/TIME START: \(\)\(\)\(\)\(\)\(\)\(\)\(\)\(\)\(\)\(\
0.0	tractor:	A+193	0 1	754		DATE/TIME FINISH: 1330 PREPARED BY:
_	Method:	Unect	4	- 4		SURFACE ELEV.:
	nent Used:		PIP			SURFACE CONDS.:
Lquipin		7(2 		BGA	8.0 9	.5
Depth	Percent	Sample	Soil	Blow	PID/ FID	
in Feet	(%) Recovery	Depth Interval	Group Symbol	Counts	ppm	FIELD DESCRIPTION AND COMMENT
		0-1			10.5	Organic Matter present, sand
		1-3			10.4	with some growel chunks of white
] 80	7.3			(1,7	With Some growel, chunks of white Kadin? transition to red sand at ~4 ft
-		3-4			14.8	
5.0		4-5			146	3-4 1200
		5-6			128	Sand, no sign of staining, Soft, some chy content
	160	67			13.9	50()
		7.8			147	out isome chy content
		8-9			16.3	1240
100		9-10		4	46	9-10 1209
10.0		10-11			19,3	hard sand with some
	100	11-13			19.7	Clay. Melinan granet
-	- '	12-13			70.1	WI Karlin?
	-	13-14	- *		18,6	14-15 1215
45.0		1472			21,3	1111/1011
15.0		15-14	1		18.3	Shall aren hue
	1/0	16-17	elf		17.7	to Sand, presence
		17-18		A1	[9,]	Slight green hue to sand, presence of white Kawlin
F	-	18-19		V	17.6	
		19-20		<u> </u>	18,1	17-15 122

SOIL BORING LOG

PROJECT		Morels	bgc/			BORING NUMBER: 60-5 PAGE NUMBER:
LOCATIO		Alban	J			DATE/TIME START: 1334
Subconti		Arlas	7		~~~	DATE/TIME FINISH: 1900
Drilling N		Drect	Oak			PREPARED BY:
Sampling						SURFACE ELEV.:
Equipme						SURFACE CONDS.:
Lquipine				ριρ	mal func	
Depth	Percent	Sample	Soil	Blow	PID/	121 002
in	(%)	Depth	Group	Counts	FID	
Feet	Recovery	Interval	Symbol		ppm	FIELD DESCRIPTION AND COMMENT
-	90	0-1			18.4	Red clay and sand, brittle
		1-9			18.3	
		2-3		•	18.5	
<i>*</i>	10.7	3-4			11.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	<	4-5	4		31.0	Sample 4-5 1330
- 5.0 -	56.		Y	-	-	
		5-6		11,35	16.3	
		6-7		-	15,7	Stoinet black sands at 7-8
7	80	7.8			54.3	
		8-9			173	transition to led clay and sound
-		9-10			17,3	70 211
- 10.0 -		4-10			24.1	sample 3-8 .1340
10.0		10-11				
-		-		**	16.8	Saturated clay and sand, Staining around 10ft
	[, .	11-12			187	
	40	12-13				Staining around 10ft
	,	l			18.8	
- 10 m		13-14	g S	,	15.8	12 12 12(2)
		14-15		A.	l	Sample 12-13 1350
– 15.0 – .		1 -(3		94	[7.]	
		15-16	iii iii ii i		14,9	
-					17/1	Compacted medium - grained sand,
		16-17				green hue
		17-16			15,6	
		18-19			13.8	Sample 19-20 1350
		19-20	<i>l</i> .		18.6	

2-12-13

PRING NUMBER: ENUMBER: E/TIME START: E/TIME FINISH: ARED BY: ACE ELEV.: ACE CONDS.: PION AND COMMENT ACT PLASTICITY BY OF L-3
PTIME START: 1355 E/TIME FINISH: 1415 ARED BY: 1415 ACE ELEV.: ACE CONDS.: PTION AND COMMENT 12, Ted Natural Plasticity
PTION AND COMMENT PLACE CONDS.: PL
ARED BY: ACE ELEV.: ACE CONDS.: PTION AND COMMENT 12, led natural plasticity
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1415



PROJECT PROJECT	NO.:		cbreg er				BORING NUMBER: PAGE NUMBER:	68.7
LOCATIO		418	Dany, Ga				DATE/TIME START:	1435
Subcont		_4	93		4		DATE/TIME FINISH:	1450
Drilling N			+ pash				PREPARED BY:	MA
Sampling Equipme				and a	1		SURFACE ELEV.:	, '
Lquipine	iii Oseu		<u>v</u>	V)	a Vac	and out 7,0	SURFACE CONDS.:	
Depth	Percent	Sample	Soil	Blow	PID/	and and 7,0		
in	(%)	Depth	Group	Counts	FID			é.
Feet	Recovery	interval	Symbol		ppm	FIELD	DESCRIPTION AND COMM	ENT
-	80	0-1			8,3	Organic p	Matter, Compacted Clay and some	hart,
	00	7-7			7,2			The same
4		3-4			1,1	Sample 3-1	4 1430	
	N.	4-5		10.00	8,3	*	1450	
5.0		5-6			Andread Linear Control of the last			
100		20			7.4	(P) cond	some clay same as aborter	
	A	6-7			6.7	Maracit	, some clay	
	10	·			0, -	ytricially	same as about	
10 -10		7-8		k	G.9	darker na	Le con and a constant	e, only
	ļ	8-9			- '		will colores	
				J	11,1	9 10	4	
10.0		9-10			15.7	4-10	Samolas	112 c
		10-11		k	8.4	()	sampled	727
7						sond pero	mes light	· ///
. 4		11-13		P	1.9	Clay becom	J. Vell	W,
1.9	60	12-18		k	3,0	1	nes Slight 1211	
7	`				- 1	C		
4		13-19		p	1.0	Sample	11-12	1
		14-15		4	18	NEW COMMANDS AND AREA PROSESS CONTRACTOR TO THE PROPERTY OF TH	10	1945
5.0 -	19					1		. 113
		1516			2.1	Cherry car	ld hard house	
	1	16-13	1.0		114	. 241	19 hard, prittle	3
4/	0	- Af	4			Camala		
_		17-16	1 5	1	5,3	Simple	118	1950
		18-19	3	110	0.9			10
		14-29	8					
		ויאין		1	.1			

ROJECT NO.: ROJECT NO.: LOCATION: Subcontractor: Drilling Method: Sampling Method: Equipment Used: Depth In (%) Depth Feet Recovery Interval Symbol PROJECT NO.: PAGE NUMBER: LOATE/TIME START: IS DATE/TIME FINISH: ISAN PREPARED BY: SURFACE ELEV.: SURFACE CONDS.: SURFACE CONDS.: FID Print Cay and Sand Surface of ganic FILLD DESCRIPTION AND COMMENT Surface FILLD DESCRIPTION AND COMMENT FILLD DESCRIPTION AND COMMENT Surface FILLD DESCRIPTION AND COMMENT FILLD DESCRIPTION AND C	00
Drilling Method: Drilling Method: Sampling Method: Equipment Used: Depth Percent Sample Soil Blow PID/ in (%) Depth Group Counts FID Feet Recovery Interval Symbol Ppm DATE/TIME FINISH: 1525 PREPARED BY: SURFACE ELEV.: SURFACE CONDS.: FIELD DESCRIPTION AND COMMENT	
Drilling Method: Direct push PREPARED BY: SURFACE ELEV.:	
SURFACE ELEV.: SURFACE CONDS.: Depth Percent Sample Soil Blow PID/	
SURFACE ELEV.: SURFACE CONDS.: Depth Percent Sample Soil Blow PID/	
Depth Percent Sample Soil Blow PID/ in (%) Depth Group Counts FID Feet Recovery Interval Symbol Ppm FIELD DESCRIPTION AND COMMENT	
Depth Percent Sample Soil Blow PID/ in (%) Depth Group Counts FID Feet Recovery Interval Symbol ppm FIELD DESCRIPTION AND COMMENT	
in (%) Depth Group Counts FID Feet Recovery Interval Symbol ppm FIELD DESCRIPTION AND COMMENT	
Feet Recovery Interval Symbol ppm FIELD DESCRIPTION AND COMMENT	
80 1-2 S.6 brittle but plaster	
- 2-3 Gi3 slight staining and organic	
[3-4] G.4] Matter	
-5.0 4-5 Sample 3-4	1505
L 5-6 K2	
F] 6-7 Sal Samp as ch.	
90 7-8 72 Slight hlade	
18-9 July 100k Staining,	
Tal No octor	
-10.0 - 9-10 9.0 Sample 9-10 1510	
10-11	
To 12-13 8.5 Dulle as above, alound	•
13-14 12. 14. 15 15 Decomes more de	then I may
1311 14.2 and light yellow medium-grain	ned
-15.0 - 14.5 14.5 Sample 14-15 1520	
100 16-17 13.1 Same as above	and the second
100 16-17 13,1 Same as above, no change	
- 4-ca	
1 1920 1920 at 1525	

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-26 2-20-13

							· · · · · ·		
	JECT INF	-					۸۵	. \ -	
Project	Number: 1160		Task Num	ber:		Area of Cond	em: Y//	W 26	
Client:_	Marlon	gor				Personnel: /	<u> </u>		
Project I	Location:	411	400			Weather:	~50	Sunny	
2. WEL	L DATA		Date Me	easured:	7-30-1	Time:	AM	Temp	orary Well: 🗆 Yes 🗷 No
Casing I	Diameter:	inc	hes	Type:PV	2 □ Stainless	Galv. Steel	☐ Teflon®		
Screen	Diameter:	inc	hes	Type: 10 PV	2 Stainless	Galv. Steel	@ Teflon®	Other:	
	epth of Well:(LIL LIA	feet				op of Protectiv	ve Casing 🔲	Other:
Depth to	Static Water:	41.40	feet	· /	of Well Casin		op of Protectiv	ve Casing 🔲	Other:
	Product:	210	feet		p of Well Casin	g (TOC) 🗀 T	op of Protectiv	ve Casing	Other:
Length o	of Water Colum	nn: <u>d1, d</u>	feet	Well Volume		_ gal 2-in well = 0.16.		•	GS): ft 6-in well = 1.469 gal/ft
3. PUR	GE DATA	 	Data Du	rged: 2-2				v.000 yav.	Equipment Model(s)
Purge M		iler, Size: _		igeu D Bladder Pump Itic Pump □ Ine					Cambusant Model(2)
1	\sim	LAST		itic Pump ☐ Ine miniess ☐ PVC				'	HF Scientific
Material	s:(Pump/Bailer	☐ Dedica	ted 27Pi	repared Off-Site	☐ Field-Clea	ned Dispos	sable	2	1P. SO
Material	s: Rope/ ubing	☐ Polyeth☐ Dedica	ted 🗅 Prep	lypropylene 🚨 ared Off-Site	□ Field-Cleane	d ⊡ ∢Disposal	ble	3. <u> </u>	11-0-
Volume	to Purge (mini	mum):	well v	olumes or	10.37	gallons		4	
Was we	Il purged dry?	☐ Yes	₩ No	Pumping Ra		gal/min			Callbrated? ☐ Yes ☐ No
Time	Cum. Gallons Removed	pН	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
	(gal)	±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU	Trater Level	Comments
1045	.00	6.81	18.78	.652	48,2	3,11	<1000	41,80	water is milky
1100	.70	6,43	19.13	.640	49.6	2.27	900	41.80	
1415	125	6.70	19.64	.623	39.4	2.60	790	41.80	
1130	.30	6.70	19,79	,620	48.1	3,02	178	41.80	
1145	.35	6.69	19.97	,619	51.8	3,16	114	91.80	
1200	.40	6.66	19.61	619	56.3	3.25	93	<u> </u>	a continued on next sheet?
	PLING DA								hemical Analyses
Method(s): 🗓 Bali	ler, Size: rifugal Pump	☐ Peristal	Bladder Pump tic Pump 🚨 Ine	☐ 2" Sub. Purtial Lift Pump	mp 🔲 4" Sub.	Pump	Ferro	us Iron: mg/L
Materials	s: PumpXBailer	☐ Polyethy	rlene G Stai	ntess PVC	☐ Teflon® ☐	Other:		DO:	mg/L
Materials	s: Tubing/Rope	Dedicate Polyethy	rlene 🛚 Poh	propylene 🔲	reflon® □ Nvi	on □ Other:		Nitrate	
Depth to	Water at Time	Dedicate of Sampli	uα. ∋α ⊓ Lueba	ared Off-Site L	Field-Cleaned	l ⊒∕Ólsposab l? □ Yes □		Sulfat	e: mg/L
Sample	10:1305 - M	Sample D	ete: 1300	Sample T	ime: 1430			Alkaliı	
•	e Sample Colle				Dup	# of Contain	2		,
1	ent Blank Colle					# of Contai	,		
5. COMI	MENTS	ð	00 G	2) 6	(7 /===	1	(0M		
		Pun	(A)	4,75	ST ran	ye, a	CPM		a di Marian anggara dan dan dan di Marian P. S. Salam D. S. Salam da dan da pada kanada da da pada da da da da
		*							
Note: Include	comments such a	s well condi	tion, odor, pr	esence of NAPL	., or other items	not on the field	data sheet.	1/1	



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-26

2/20/13

	Cum. Gallons	рН	Temp	Spec. Cond.	ORP	DO	Turbidity		
Time	Removed (gal)	±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU	Water Level	Comments
215		6.66	19,69	.618	58.9	3.31	71.7	41.80	underestimates flow
739	1.8	6.66	19.88	412	63.3	3,42	59.3	41.80	•
245	2,0	666	19.79	.616	67.1	3.46	54.8	41.80	
300	24	6.67	20,05	.616	66.0	3.47	36.3	41.80	
315	2.6	6.67	20,04	.616	71.8	3,49	33,3	41.80	
330	3	6,67	20.03	.616	74.5	3,49	19.60	41.80	
345	3.4	6.67	20,18	.616	78.2	3,35	17.5	41.80	Slowed to 1 (F
100	4.0	6,67	20,33	.616	80.7	3,41	14.0	41.80	
415	4,4	6,47	70,31	-616	81.9	3,37	14.0	41.80	
430	4.6	6.67	20,43	.616	79.3	3,42	5.08	41.80	
		11	1		(-0-/	1			
,					DUMA	11e			
					1				
						-			
					1				
				-					

Purge data continued on next sheet? $\ \Box$

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: Spartan MW-2

2/21/13

4 000	ICCT INICC	DMAT	ION							
1. PROJECT INFORMATION Project Number: 142327 Task Number: Area of Concern: 502/15										
Client:	Mal Gra		I ask I tullio	·		Personnel:				
_	ocation:		any, G	A		Weather:	SO Sun	n-/		
				asured: 🖟 🕽			m	Tompo	orary Well:	IVes PNo
2. WELI	,	1				☐ Galv. Steel			•	1 res 2140
_	Diameter:	≼incl		-		☐ Galv. Steel				
•	Diameter: &	incl	100	4.		(TOC) To			Other:	
	pth of Well:(- 13	001	From: Top			p of Protective		Other:	
	Static Water:		001	From: Top			op of Protective	e Casing 🔲 (Other:	
	Product: of Water Colum	1-1 6-7	eet	Well Volume:	2.86	gal	Screened In	iterval (from (GS):	
Lengur	of water Colum	<u>† 14.2 †</u> .		Note: 1-in well =	= 0.041 gai/ft :	2-in well = 0.163	gal/ft 4-in we	ell = 0.653 gal/l	t 6-in well =	1.469 gal/ft
3. PUR	GE DATA		Date Pur	ded:	.1		30		Equipme	nt Model(s)
Purge M	fethod: ☐ Ball	lor Size		Bladder Pump	272" Sub. Pu	mp 🔲 4" Sub. 🔲 Other:	Pump	1	151	
	s: Pump/Bailer	☐ Polyeth	vlene stal	inless D PVC	☐ Teflon® ☐	Other:		2	F Scif	ntific
		Polyath	vlene 🗆 Pol	vormoviene 🗆	Teffon® □ Nv	ned Dispos		3. <u>G</u>	usub	
	s: Rope/Tubing	☐ Dedicat	ed 🗆 Prepa	ared Off-Site	Field-Cleaner	d Ja Disposad	ole	4		
Volume	to Purge (minir	150		olumes or		gallons			Calibrated?	⊋Yes ☐ No
Was we	Il purged dry?	☐ Yes		Pumping Rat	e:	gal/min DO	Turbidity			
Time	Cum. Gallons Removed	рН	Temp	Spec. Cond.		> of ±10% or		Water Level	Co	omments
	(gal)	±0.1 su	±2°C	±10 µS/cm	±20 mV	±0.2 mg/L	≤ 10 NTU		00	
0940	1.3	7,20	20,57	.561	158,1	7.100	41000	47,43	Milky	Water
0950	4.0	7.14	20.58	,542	168,0	7.34	51000	51.10		
1005	6.0	7.13	20,40	,534	171,4	7.43	<1000	151.10		
1072	9.0	7,12	20,94	,525	171.5	7.12	934	51.10		
1035	12.0	7/11	20.97	,523	(7)	7,17	FLF	51.10	Switch !	to 20 minutes
1055	14.0	7:11	20'84	1518	169,4	1.70	752	Purge da	ta continued	on next sheet?
	PLING DA					 _		Geo	chemical An	<u>alyses</u>
Method	□ Ro	ller Size	p ☐ Peristal	Bladder Pump	o □ 2" Sub. Pu ertial Lift Pump	ımp 🚨 4" Sub.	Pump	Ferro	ous Iron:	mg/L
Materia	als: Pump/Baile	Polyeth	ylene 🗹 Sta	inless PVC	☐ Teffon® □) Other:	sable	DO:		mg/L
	als: Tubing/Rop	Polyeth	viene 🗀 Pol	voropviene 🚨	Teffon® 🔾 Ny	non Dother:_		Nitra	te:	mg/L
		- Dedica	() (alos on one	☐ Field-Cleane Field Filtere			Sulfa	ate:	mg/L
Sample	to Water at Tim e ID: <u>{3<i>05</i>}- \$</u>	(A) MW-			1/00	# of Conta	~	Alka	linity:	mg/L
	ate Sample Coll			1700	-	# of Conta		-	 -	
	nent Blank Colle		Yes □ No	<u> </u>	LU	# of Conta	iners:3_			
part (September 1)				1 .1	0001 (700	
15. CON	MENTS	well	(()	_g00E	condition	n				
				<u> </u>				. 7		
Note: Includ	le comments such	as well con	dition, odor, p	resence of NA	PL, or other item	ns not on the fiel	d data sheet.	11/4		

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: Sparta MW-2

	GE DATA Cum. Gallons	рН	ued fron Temp	Spec. Cond.	ORP	DO	Turbidity		
Time	Removed (gal)	±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU	Water Level	Comments
115	16.0	11.5	2/05	.514	168.6	7.62	801	5110	
135	0.01	7.10	21.08	,513_	167.7	735	735	51,10	
ISS	17,0	7.10	21.07	.512	167.7	733	970	51.10	Still milky water
1312			+ ran	sition	10	bladder	pum	2	
			per	T	Berrym	an's	ing gest	ion	
230		151	1	Lilling	5.40	-	00		
rasd	17.1	7.06	19.78	,Soq	174.3	7.71	836	51,50	
IBIO	17.3	7.07	19,95	.518	168.1	1.60	718	12110	
1330	17.5	7.06	19,92	.516	166.5	7.59	773	51.10	
1350	17.7	7.08	20.03	.515	164.9	7.54	638	51.10	1 CPM
1410	17.8	7.08	20,07	,519	164,5	7.56	598	SINO	
1430	179	9.08	30.08	, 514	164.0	7.54	493	51.10	
1450	18	7,06	11.06	, 517	(63,9	7.50	386	51.19	
1510	18.1	7,08	20.10	, 514	163.7	7.52	317	5610	
1530	183	7.08	20.12	.514	164,1	7.54	409	51.10	
1550	18.5	7.07	20.12	,519	163,2	7,50	303	51.19	
1619	19.0	7.07	3013	, 514	163,4	7.49	314	51,10	
1630	19.4	7.07	20.13	,514	163.3	7.51	200	51,10	
1650	20.0	7.07	20.14	.514	163.7	7.48	176	51.10	
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Signature

1339

Brown and Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: <u>NW - 26</u>

1 000	IECT INE	ODMA.	TION	····					
	JECT INF								
1	A	6 _A		ber:		Area of Conc			
						Personnel:		05.C	2
	_ocation:	u cyre					<u></u>	19 F	
2. WEL	L DATA	2	Date Me		<u> </u>	_Time: <i>A</i> _			orary Well: □Yes ☑No
Casing I	Diameter:		hes			Galv. Steel			
	/		hes	· ·		Galv. Steel	☐ Tefion®	Other:	
	pth of Well:				p of Well Casin		op of Protectiv	re Casing C	Other:
Depth to	Static Water:	43.50	feet		p of Well Casin	-	op of Protectiv	re Casing C	Other:
1	Product:	1000	feet		p of Well Casin 2 14	-, ,	-	-	Other:
Length o	of Water Colun	nn: <u>////</u> %©	feet	Well Volume	= 0.041 gal/ft	gal gal0.16			GS): t 6-in well = 1.469 gal/ft
2 DHD	GE DATA	· · · · · · · · · · · · · · · · · · ·	Doto Du			Time: 6		Cir = 0.007 gain	
	Ba	iler, Size:	بر	Bladder Pums	D □ *2" Sub. Po	ump 🗆 4" Sub.	Pump		Equipment Model(s) Mok P(o
Purge M	eulou: □ Cen	trifugal Pum	p 🛘 Perista	ltic Pump □ Inc	ertial Lift Pump	Other:	-		MP12 878 ED MP-50
	s: Pump/Bailer	Dedica	ted ⊑iP		Field-Clea 🗷 عر	ined 🚨 Dispos			
Material	s: Rope/Tubino	Polyeth	ylene □ Po	lypropylene D	Teffon® □ Ny	/lon □ Other:_ ed ☑ Disposat	ale		51-566
Volume	to Purge (mini					gallons	oic .	4 L	PT-15CE
· ·	I purged dry?	☐ Yes		Pumping Ra		gal/min			Calibrated? ☐ Yes ☐ No
	Cum. Gallons	рН	Temp	Spec. Cond.	ORP	DO	Turbidity		
Time	Removed (gal)	±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU	Water Level	Comments
0820	1.00	6.84	19.62	8.699	58.3	4 JC	183	43.60	1
1026		105	1011	0 1 01	500	1125	(77	U2 1	
08 33	2.00	6.87	17.61	0.406	511	9.33	4 -	75.60	
08.70	3.00	6.85	19.68	0.698	24.	3.45	115	43.60	
0905	4.00	6.85	19.85	0.695	51.2	5.79	40.8	43.60	
0920	5.00	6.84	19.83	0.689	44.9	3.68	19.2	43.60	
								Purge data	a continued on next sheet? 🏻 🌃
4. SAMF	PLING DA			•				Geoch	nemical Analyses
Method(s): 🛄 Bai 🗆 Cent	ler, Size: rifugal Pump	☐ Peristal	Bladder Pump tic Pump 🚨 Ine	□ 2" Sub. Pu ertial Lift Pump	mp □ 4" Sub. □ Other:	Pump	Ferro	us Iron: mg/L
Materials	: Pump/Bailer	☐ Polyethy	lene G Sta	inless D PVC	☐ Teflon® ☐	I Other: ned □ Dispos		DO:	mg/L
Materials	s: Tubina/Rope			-	-	lon ☐ Other: d ≁☐ Disposab		Nitrate	e:mg/L
								Sulfate	
Sample :	Water at Time 13129 - MG D:	J-26 Samala D	ng:		riela Filtered 1 14 t	d? □ Yes ∕ 2 # of Contai	_		
	Sample Colle					# of Contai		Alkalir	nity:\ mg/L
	nt Blank Colle					# of Contai			
									TOTAL CONTRACTOR OF THE PARTY O
5. COM	MENTS	<u> In</u>	take	at ~	55 1	T+			
									i
Note: Include	comments such a	as well cond	tion, odor, pi	resence of NAP	L, or other item:	s not on the field	data sheet.		
					*			>	

FORM GW-2 (Rev 11.March.10 - sej)

Page _____ of ____

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: <u>MW- 24</u>

3. PURO	GE DATA	(contin	ued fron	n page)				
Time	Cum. Gallons Removed (gal)	1	Temp ±2°C	Spec. Cond.	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0935	6.00	6.85	19.91	0.685	37.6	3.73	11.8	43.60)
0950	700	6.88	20.02	0681	7.3	3.72	6.18	43.6.	
1005	8.00	6.92	20.17	0.679	-11.5	3.62	5.20	43.6	
1020	9.00	6.89	20:38	0.647	-17.8	3.59	4.28	43.6	
1035	10.∞	6.92	20.60	0.673	-31.8	3.56	3.03	43-6	
1050	11.0	6.93	20.71	0.672	-406	3.58	2.54	43.6	/
1105	12	6.96	20.99	0.668	-46.7	3.63	2.18	43.6	
1120	13	6.97	21.20	0.668	-45.7	3.63	2.34	43.4	
1135	14	6.98	21.34	0.666	-40.8	3.60	2.18	43.6	
1150	15	4.97	21.44	0.665	-30.8	3.64	2.19	43.4	
1205	16	7.03	21.71	0.662	-22.3	3.69	2.03	43.6	
1220	17	7.∞	21.60	0.661	-24.3	3.77	1.98	43.6	
1235	18	6.99	21.93	0.659	-55.5	3.78	2.54	43.6	
1240	Co11:	ect-	sam	L	-				
,			2						
٨							•		***************************************
	•					. "			

	-			···					
						<u></u>			, - A. M

					•				
							<u> </u>		intinued on next sheet?

Purge data continued on next sheet?

age of

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: <u>Spartan mw-</u>2

1. PRO	JECT INF	ORMA	TION	· · · · · · · · · · · · · · · · · · ·					
Project I	Number:		Task Num	ber:		Area of Cond	ern:		
•	Macarea					Personnel:	_		
Project l	ocation: A	Many	40	·		Weather:S	UNAY	~ 85.	۶
2. WELI	_ DATA	2_	Date Me	easured: 5	6.13	Time: 🔼	м	Temp	porary Well: □Yes ⊈No
Casing [Diameter:		ches			Galv. Stee			· · · · · · · · · · · · · · · · · · ·
Screen I	Diameter:	ind	ches	Type: 🗹 PV	C 🗆 Stainless	Galv. Stee	I ☐ Teflon® (Other:	
	pth of Well:	68	_feet	From: 🖫 To	p of Well Casin	g (TOC) 🗆 T	op of Protectiv	e Casing 🚨	Other:
Depth to	Static Water:	48:3	_feet	•	p of Well Casin	- , ,	op of Protectiv	e Casing	Other:
	Product:		_feet		p of Well Casin	- ,	op of Protectiv	e Casing 🚨	Other:
Length o	f Water Colun	nn: <u>17-1</u>	_feet	Well Volume		gal gal en_well = 0.16	Screened In	nterval (from	GS): /ft 6-in well = 1.469 gal/ft
3 PURC	SE DATA		Date Pu	rged: 5.		Time: 0		on - 0.007 gan	Equipment Model(s)
Purge M	othod: 🗆 Ba	ıiler, Size: _	<i>x</i>	₫ Bladder Pump	D 2" Sub. Pt	ımp □ 4" Sub	. Pump		more 110 Pune
ŭ	□ Celi	C) Deliveth	•	·	•	☐ Other: ☐ Other:		_	ED MB-50
Materials	s: Pump/Bailer	☐ Dedica	ted 🗆 Pi	repared Off-Site	Field-Clea	ned 🗆 Dispo	sable		151-556
	s: Rope/Tubino	Dedica 🗆 🗅	ted 🗆 Prep	ared Off-Site	☐ Field-Cleane	lon □ Other:_ d □ Disposa	ble		URT-15CE
Volume	to Purge (mini	mum): <u>3</u>	well v	rolumes or \P	.86	gallons		4	<u> </u>
Was wel	l purged dry?	☐ Yes	□ No	Pumping Ra		gal/min	ı	1	Calibrated? Д Yes ☐ No
Time	Cum. Gallons Removed	рН	Temp	Spec. Cond.		DO > of ±10% or	Turbidity	Water Level	Comments
	(gal)	±0.1 su	±2°C	±10 μS/cm	±20 mV	±0.2 mg/L	≤ 10 NTU	114101 20101	Commond
0800	0.25	7.07	19.73	0.560	-4.2	7.99	336	49.20	
0815	1.00	7.06	19.81	0.507	326	7.76	195	49.20	
0830	2,00	7.07	19.87	0.505	47.1	7.67	76.2	49.20	P '
0845	3.00	7.07	19.85	0.504	47.4	7.61	51.1	49.20	/
0900	4.00	7.08	19.82	0.603	50.7	7.77	32.5	49.20	31
					<u> </u>			Purge da	ta continued on next sheet?
4. SAMF	PLING DA	ΛTA						Geog	hemical Analyses
Method(s	s): 🚨 Bai 🖸 Cent	ler, Size: rifugal Pump	□ Peristali	∕ Bladder Pump tic Pump □ Ine	□ 2" Sub. Pu rtial Lift Pump	mp □ 4" Sub. □ Other:	Pump	Ferço	ous Iron: mg/L
Materials	: Pump/Bailer	□ Polyethy	ylene Z Stai ed □ Pre	nless □ PVC epared Off-Site	☐ Teflon® ☐	Other:	sable	DO:	mg/L
Materials	: Tubing/Rope	_		-		•		Nitrat	te: mg/L
	Water at Time			ared Off-Site 1		d Gr ∕Disposab 1? □ Yes J		Sulfa	te: mg/L
Sample I	D:13128 -	Sample D	Alu-2	5.9.13 Sample 1	rime: 1435		-	Alkali	\
-	Sample Colle		/		8-DUP	# of Contai	ners: 3		
Equipme	nt Blank Colle	cted?	Ŷes □ No	ID: 1312	8-EB	G (500 contains	ners: <u>3</u>		
5. COM	/IENTS	Elove	du a	+ Star	+ No	milley	مادواردا	54.00	iment.
	3 -1/-	at ~	(1)		,,,,,,,,,	116/04		- 050	
Note: Include o	comments such a	as well cond	ition, odor, pr	esence of NAPI	L, or other items	not on the field	data sheet.		

FORM GW-2 (Rev 11.March.10 - sej)

Page _____ of ____

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: spartan MW-2

3. PURG	E DATA	(contin	ued fron	n page _ ()				
	Cum. Gallons	i -	Temp	Spec. Cond.	ORP	DO	Turbidity		The state of the s
Time	Removed (gal)	±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU	Water Level	Comments
0915	5,00	7.12	19.97	0.502	5/.3	7.94	22.3	49.20	
0930	6.00	7.10	20.12	0.501	49.1	7.95	18.3	49.20	
0945	7.00	7.11	20.26	0.501	44.7	7.93	15.6	49.20	
000	8.00	7.11	20.37	0.500	43.6	7.86	19.9	49.2	0'
1015	9.00	7.6	20.39	0.500	45.0	7.88	18.9	49.20	·
1030	10.00	7.10	20.46	0.499	48.4	8.42	16.2	49.20	
1045	11.00	7.09	20:37	0499	52.0	8.48	24.7	49.22	
1100	12.00	7.15		0.491	56.7	11.84	469	49.2	
1115	13	7.15	20.57	0.500	59.1	11.22	278	49.2	0 -
1120	TOOK	out	pung). B(a	der	hay	large	crec.	57
	<u> </u>	had			eplaua	1.	0		
११५७	14	7.11	21.53	0.503	18.2	8.00	554	49.20	
1200	15	7.15	U.60	0,501	-9.5	7.91	165	49.20	
1215	16	7.18	21.60	0.500	-15.9	7.83	83.5	49.70	
1230	17	7.15	21.68	0.600	-3.3	7.75	54.3	49.20	
1245	18		21.74	0.498	3.9	7.75	44.4	49.2	
1300	19	7.18	21.72	0.497	6.7	7.88	28.6	49.20)′
1315	20	7.14	21.35	0.495	12.3	7.79	22.7	49.20	/
1330	21	7.12	21.43	0.496	15.7	7.75	19.1	49.20	
1345	22	7.12	21.31	0.496	7.7	7.73	Ţ	49.2	o '
1400	23	7.15	21.07				14.6	49.20	
1415	24	7.15	2(.10	0.495	13.2	7.69	9.93	49.20	′
1430	25	7.14	21.05	0.496	8.4	7.77	8.35	49.20	•
1435	Coll	ecf	Sang	de					
			,		,				
								•	

Purge data continued on next sheet? $\ \Box$

Signature

FORM GW-2 (Rev 11.March.10 - sej)

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Brown AND Caldwell WELL ID: SOOR LOS AND CALL DEVELOPMENT

1. PRO	JECT INFO	ORMA [*]	TION								
4	Number:		Task Nur	mber:		Date: 5.	6.13		Time: D83 5		
Client:_	Margrago					_ Personnel:	B5				
Project	Location:	16994	<u>6a</u>			_Weather:_	SUNAY	N 80.7			
2. WEL	L DATA										
Casing	Diameter: 1	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	hes	Type: 📭 🏞	VC 🗆 Stainle	ess 🗆 Galv. :	Steel 🗆 Teflor	n® 🗆 Other:			
	Diameter: 7		hes	Type: 🏚 🌣	/C □ Stainle	ess 🔾 Galv.	Steel 🗆 Teflor	n® 🛭 Other:			
Total De	epth of Well:	<u> </u>	et		op of Well Cas		☐ Top of Prote	ective Casing	Other:		
1	Static Water:	化.ろ	feet		op of Well Cas		☐ Top of Prote	ective Casing 🔲	Other:		
	Product:	feet			op of Well Ca	·	☐ Top of Prot	ective Casing 🛛	Other:		
Length of Water Column: 19.7 feet Well Volume: 3.28 gal Screened Interval (from GS): Note: 2-inch well = 0.167 gal/ft 4-inch well = 0.667 gal/ft											
3. PUR	GE DATA	with more distributed and distributed as a few as consensal.		the control of the second control of the sec	***************************************			90	Equipment Model(s)		
	lethod: Bailer, Centril	Size:	Bladde	r Pump 🔲 2"	Submersible F	Pump 🗆 4" S	Submersible Pu	imp 1 Res	laine Amo		
		_	u Peristait ess □ PV0		ertial Lift Pump D 🔲 Other:	o u Other:			- 556		
	s:(Pumb/Bailer	☐ Dedic	ated 🗆 Prep	pared Off-Site	Defield Clea	•	posable				
Material	s: Ropa/Cubing	o Polyei □ Dedic	inylene 🗆 ated 🗅 Pro	Polypropylene pared Off-Site	u Tellon® □ Field Cle	⊔ Other: eaned ⊕∕ Ói:	sposable	_ 3. <u>\$7 \cdot\cdot\cdot\cdot\cdot\cdot\cdot\cdot</u>	T-15CF		
Was we	II purged dry?	☐ Yes	No No	Pumpii	ng Rate:	ga	al/min				
	0 0 1	1	1	T 6	T**	T	T	1			
	Cum. Gallons Removed	pН	Temp	Spec. Cond.	ORP	DO	Turbidity	045			
Time	≥ 5 Volumes	± 0.1	±2°C	> of ±10%	mV		> of ±10%	Other:	Comments		
	25 Volumes	7.507	=2 G	or ±10 µS	IIIV	mg/L	or ≤ 10 NTU	WL ft			
1045	5	20.35	20.35	0.244	96.3	10.10	ADL	52.90	Alof of apr		
H	8	6.98	20.24	0. 245	98.6	10.25	ADL	48.50'	Movement		
0915	10	7.03	20.37	0.247	103.6	10.32	ADL	48.50	from pm,		
0930	15	7.15	20.36	0.275	90,0	10.25	787	48.50	•		
6945	17		·	0.292	100.0	10.21	ACC	48.50			
1005	19	7.03	1		993	1	621	48.50			
1015	21	7.10		0.499	952	10.31	942	48,50			
1045	25	6.96		0.3(4)	95.4	11.11		48.50			
	*****	,		0.480		1	AOL				
1(00	30	6.97			88.2		AOL	48.50			
1115	<u> </u>	7.05		0.474	89.7	1007	867	48.50			
1130		7.12	20.50	0.475	85:4	12.00	553	48.50	or of vei		
1145	Pump	Sta	noed	WORK	ina. A	11 0	MARS	9/ 0/0	sed.		
	•		1		Ü		i i		Purge data continued?		
4. COMI	MENTS	wilky	whik	e at	star						
Note: Include	comments such as	well condi	tion, oder, ne	esence of NAF	21 . or other ite	ms not on the	field data shee	f			
	Jaor ac	0011011	, ouoi, pi	-201100 OL 14VIL	_, o. oce.	ייים ייסי לוו ווופ	u uaia SIICE				

Brown AND Caldwell

ROUNDWATER MONITORING WELL DEVELOPMENT

WELL ID: spartan MW.2

3. DEVE	LOPMEN	T DAT	con¹) ۹	tinued fro	om page)			
Time	Cum. Gallons Removed	рН	Temp	Spec. Cond.	ORP	DO	Turbidity	Other:	Comments
****	≥ 3 Volumes	s.u.	°C	μS	mV	mg/L	≤ 10 NTU		
1247	lump	01		(-MAN				of	W W W W W W W W W W W W W W W W W W W
100	45	6.93	20.53	0.344	80.2			48.50	•
1200	50	7.06	20.72	0.484	75.4	10,05	381	1100	
1205	Pump	off	· a	· 5 CO 8	Mores	01	Keps	540}4;	na
	off.		un d	nay b	be h	avina	dif	fially	<u>/</u>
	16		_	mater				· · · · · · · · · · · · · · · · · · ·	
1253		7.12	20.41			9.83	ADL	48.50	781
1325		6.91	2050	D. 494				49 10	
1340			25:27	0.501	56.3	8.29	1075	48.76'	
1355				ShiA	0.0				
1450		_				(4)	King		
	13.	(1	Low	650s elepra	,	00	J		
		- 1 [7,4,5	S. C. C.			,		······································
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		•	-						
								•	V7447

Purge data continued?

Appendix B: Laboratory Analytical Reports



ANALYTICAL ENVIRONMENTAL SERVICES, INC.



February 27, 2013

Sarah Jones BROWN AND CALDWELL 990 Hammond Drive Atlanta GA 30328

TEL: (770) 394-2997 FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones: Order No: 1302G53

Analytical Environmental Services, Inc. received 2 samples on 2/21/2013 10:45:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- -NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- -AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Project Manager

Taralesback

CHAIN OF CUSTODY

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL:: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Brown & Caldwell	ADDRESS: 90 Ste 400,	10 Han	nmand Ga 3	10578	(lue	Van I	(1)	বু	₹	VALYSI	S REQ	UESTE	ь 		Visit our website www.aesatlanta.com	
PHONE:	FAX: SIGNATURE:	ills h	<u> </u>			Hexavalont Chierum	Towelest Chemin	Chimuna L	Arean Poplar						to check on the status of your results, place bottle orders, etc.	No## of Containers
SAMPLED BY: Mary Akala II		Myala	12	· · · · · · · · · · · · · · · · · · ·		exava	भूकर पू	MOL.	Jakesyn J							o#ofC
# SAMPLE ID	SAM	PLED	q	Composite	Matrix (See codes)	=			PR	ESERVA	TION	See code	s)		REMARKS	z
	DATE	TIME	Grab	Ö				1001	-				-			R
, 130SI-MW-26	3-30-13	1430	X		Chl	X			<u> </u>	+			 -		-	3
2 13081-Oup 3 True blanks A	1	ROU			<u>. 0₩</u>	1	4	7	/ -	+-	-	+	++	- - 		7
3 Trip blanks A					<u>~₩</u>	_		\dashv	_		\vdash	_	+			8
4			1	\longrightarrow			\dashv		+	┼	\vdash		+-+			
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14	<u> </u>															
RELINQUISHED BY DATE/TIME	RECEIVED B	Y A		7	DATE/TIME	PROI	ECT N	IAME:		ROJECT	INFO	RMATIO	N		RECEIPT	7
" MATGRATA 2-20-13 1600	1.	MI	2/21	113	10.45		2011			Gray	71				Total # of Containers	6
2:	2:	//					ECT#			J					Turnaround Time Request	
		<u>/</u>				SITE	ADDF	ESS: (601	5 Sla	osev	Dero	e		Standard 5 Business Days	
3:	3:							ORT TO	<u>्र}()</u> : 'रा	20/12	nan A	Spring	ncald.	1011\	2 Business Day Rush Next Business Day Rush	
SDDGLAL INSTRUMENTALIONS (700) A FENTS.		SHIPMEN	IT METHO	OD		_	OICE T		·	A11	I-MIT	101 00	- 10A	/ · · · · · · · · · · · · · · · · · ·	O Same Day Rush (auth req.)	
SPECIAL INSTRUCTIONS/COMMENTS:	OUT /	/ .	VIA:	-					ROM A	BOVE)			`		Other	
No trip blanks	IN /	IN / / VIA:										STATE PROGRAM (if any): E-mail? (V) N; Fax? Y (1)				
1	CLIEN	\ /	JPS MAI OTHER	L COU	RIER	QUOTE #: PO#:					E-mail? (Y) N; Fax? Y (N) DATA PACKAGE: I (II) III	IV				
SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE C	ONSIDERED R	EYHOUND C	NEXT B	USINESS	S DAY. IF T	URNA	ROUN	D TIM	E IS N	OT IND			ILL PRO	CEED WITH		
SAMPLES RECEIVED AFTER 3PM OR ON SATURDAL ARE C	TION UNLESS	OTHER ARR	ANGEME	NTS AR	E MADE.											

Client: BROWN AND CALDWELL Client Sample ID: 13051-MW-26

Project Name: MacGregor Golf Collection Date: 2/20/2013 2:30:00 PM

Lab ID: 1302G53-001 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C				(SW	/3005A)			
Chromium	BRL	0.0100		mg/L	172690	1	02/21/2013 15:24	TA
Hexavalent Chromium in Water SW	7196A							
Chromium as Cr+3	0.0959	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
METALS, TOTAL SW6010C				(SW	/3010A)			
Chromium	0.0959	0.0100		mg/L	172746	1	02/25/2013 18:52	MR

Date:

27-Feb-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL Client Sample ID: 13051-DUP

Project Name: MacGregor Golf Collection Date: 2/20/2013 12:00:00 PM

Lab ID: 1302G53-002 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C				(SW	V3005A)			
Chromium	BRL	0.0100		mg/L	172690	1	02/21/2013 15:27	TA
Hexavalent Chromium in Water SW7196.	4							
Chromium as Cr+3	0.0979	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R239155	1	02/21/2013 11:50	CG
METALS, TOTAL SW6010C				(SW	/3010A)			
Chromium	0.0979	0.0100		mg/L	172746	1	02/25/2013 19:02	MR

Date:

27-Feb-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Sample/Cooler Receipt Checklist

ClientBrown + C_	,	Work Orde	ar Numbor	1302653
Checklist completed by	2/2/	113	A Number	
Carrier name: FedEx UPS Courier Client U	S Mail Othe	r		
Shipping container/cooler in good condition?	Yes _	No	Not Present	
Custody seals intact on shipping container/cooler?	Yes	No	Not Present	
Custody seals intact on sample bottles?	Yes _	No	Not Present	
Container/Temp Blank temperature in compliance? (4°C±2)*		No		
Cooler #1 5 / Cooler #2 Cooler #3	Cooler #4 _	Coo	oler#5	Cooler #6
Chain of custody present?	Yes	No		
Chain of custody signed when relinquished and received?	Yes _	No		
Chain of custody agrees with sample labels?	Yes _	No		
Samples in proper container/bottle?	Yes	No		
Sample containers intact?	Yes _	No		
Sufficient sample volume for indicated test?	Yes _	No _		
All samples received within holding time?	Yes _	No _		
Was TAT marked on the COC?	Yes _	No		
Proceed with Standard TAT as per project history?	Yes	No	Not Applicable	
Water - VOA vials have zero headspace? No VOA vials su	ıbmitted	Yes _	No	
Water - pH acceptable upon receipt?	Yes	No _	Not Applicable	·
Adjusted?	Chec	ked by	<i>(* '')</i>	
Sample Condition: Good Other(Explain)				
(For diffusive samples or AIHA lead) Is a known blank include	led? Yes	1	No	

See Case Narrative for resolution of the Non-Conformance.

^{*} Samples do not have to comply with the given range for certain parameters.

 $[\]verb|L|Quality Assurance| Checklists Procedures Sign-Off Templates| Checklists | Sample Receipt Checklists | Sample$

Client: BROWN AND CALDWELL

Project: MacGregor Golf

Lab Order: 1302G53

Dates Report

Date: 27-Feb-13

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1302G53-001A	13051-MW-26	2/20/2013 2:30:00PM	Groundwater	TOTAL METALS BY ICP		02/22/2013	02/25/2013
1302G53-001B	13051-MW-26	2/20/2013 2:30:00PM	Groundwater	DISSOLVED METALS BY ICP		02/21/2013	02/21/2013
1302G53-001C	13051-MW-26	2/20/2013 2:30:00PM	Groundwater	Hexavalent Chromium			02/21/2013
1302G53-002A	13051-DUP	2/20/2013 12:00:00PM	Groundwater	TOTAL METALS BY ICP		02/22/2013	02/25/2013
1302G53-002B	13051-DUP	2/20/2013 12:00:00PM	Groundwater	DISSOLVED METALS BY ICP		02/21/2013	02/21/2013
1302G53-002C	13051-DUP	2/20/2013 12:00:00PM	Groundwater	Hexavalent Chromium			02/21/2013

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302G53

ANALYTICAL QC SUMMARY REPORT

BatchID: 172690

Date:

27-Feb-13

Sample ID: MB-172690	Client ID:				Uni	its: mg/L	Prep	Date: 02/20	/2013	Run No: 238851
SampleType: MBLK	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 172690	Ana	llysis Date: 02/21	/2013	Seq No: 5001183
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-172690	Client ID:				Uni	its: mg/L	Prej	Date: 02/20	/2013	Run No: 238851
SampleType: LCS	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 172690	Ana	llysis Date: 02/21	/2013	Seq No: 5001182
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9892	0.0100	1	0	98.9	80	120	0	0	0
Sample ID: 1302F76-002AMS	Client ID:				Uni	its: mg/L	Prej	Date: 02/20	/2013	Run No: 238851
SampleType: MS	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 172690	Ana	llysis Date: 02/21	/2013	Seq No: 5001185
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.8633	0.0100	1	0	86.3	75	125	0	0	0
Sample ID: 1302F76-002AMSD	Client ID:				Uni	its: mg/L	Prep	Date: 02/20	/2013	Run No: 238851
SampleType: MSD	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 172690	Ana	llysis Date: 02/21	/2013	Seq No: 5001188
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.8680	0.0100	1	0	86.8	75	125	0.8633	0.535	20

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302G53

ANALYTICAL QC SUMMARY REPORT

BatchID: 172746

Date:

27-Feb-13

Sample ID: MB-172746 SampleType: MBLK	Client ID: TestCode:	METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 172746		ep Date: nalysis Date:	02/22/2013 02/25/2013	Run No: 239 Seq No: 500	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref	Val %RPD	RPD Lim	it Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
Sample ID: LCS-172746 SampleType: LCS	Client ID: TestCode:	METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 172746		ep Date: nalysis Date:	02/22/2013 02/25/2013	Run No: 239 Seq No: 500	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref	Val %RPD	RPD Lim	it Qual
Chromium	1.019	0.0100	1	0	102	80	120	0	0	0	
Sample ID: 1302G36-001BMS SampleType: MS	Client ID: TestCode:	METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 172746		ep Date: nalysis Date:	02/22/2013 02/25/2013	Run No: 239 Seq No: 500	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref	Val %RPD	RPD Lim	it Qual
Chromium	1.030	0.0100	1	0.004057	103	75	125	0	0	0	
Sample ID: 1302G36-001BMSD SampleType: MSD	Client ID: TestCode:	METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 172746		ep Date: nalysis Date:	02/22/2013 02/25/2013	Run No: 239 Seq No: 500	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref	Val %RPD	RPD Lim	it Qual
Chromium	1.018	0.0100	1	0.004057	101	75	125	1.030	1.24	20	

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: BROWN AND CALDWELL

MacGregor Golf **Project Name:**

1302G53 Workorder:

ANALYTICAL QC SUMMARY REPORT

BatchID: R239155

Date:

27-Feb-13

Sample ID: MB-R239155	Client ID:				Un	its: mg/L	Prej	Date:		Run No: 239155
SampleType: MBLK	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R23915	5 Ana	llysis Date: 02/21/	/2013	Seq No: 5006868
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-R239155	Client ID:				Un	its: mg/L	Prep	Date:		Run No: 239155
SampleType: LCS	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R23915	5 Ana	llysis Date: 02/21	/2013	Seq No: 5006869
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5272	0.0100	0.5	0	105	90	110	0	0	0
Sample ID: 1302G53-001CMS		13051-MW-26			Un	its: mg/L	Prep	Date:		Run No: 239155
SampleType: MS	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R23915	5 Ana	llysis Date: 02/21/	/2013	Seq No: 5006874
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.4714	0.0100	0.5	0	94.3	85	115	0	0	0
Sample ID: 1302G53-001CMSD	Client ID:	13051-MW-26			Un	its: mg/L	Prep	Date:		Run No: 239155
SampleType: MSD	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R23915	5 Ana	llysis Date: 02/21	/2013	Seq No: 5006875
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.4714	0.0100	0.5	0	94.3	85	115	0.4714	0	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Rpt Lim Reporting Limit

Estimated value detected below Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

ANALYTICAL ENVIRONMENTAL SERVICES, INC.



February 27, 2013

Sarah Jones BROWN AND CALDWELL 990 Hammond Drive Atlanta GA 30328

TEL: (770) 394-2997 FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones: Order No: 1302I17

Analytical Environmental Services, Inc. received 2 samples on 2/22/2013 11:40:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- -NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- -AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Project Manager

Taralesback



ANALYTICAL ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

2-243 Work Order: 1302 111

3785 Presidential Parkway, Atlanta GA 30340-3704 AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

COMPANY: Brown + Caldwell	ADDRESS:	1 Acres Ste 400	,	ANALYSIS REQUESTED	Visit our website
PHONE:	FAX:	30328 30328	기년 월 큐 워		www.aesatlanta.com to check on the status of your results, place bottle orders, etc.
SAMPLED BY: MEORGE / Kala	SIGNATURE:		Heavalent (V Trivilat (V Total Chron Dissolut (P		oj oj oj
# SAMPLE ID	SAMPLED	Grab Composite Matrix (See codes)		PRESERVATION (See codes)	·2 REMARKS
\mathcal{M}	DATE TIME		掘工		
1 13051-MV-26	2-2013 4430	 	XXXX	- MI	NO Samples in Coolen
2 130St - Dwp - N	2-20-13 1200	- X - 6W	- 		NO Sampes in Cooler 3
3 13052-50a(ta-MW-A	2-21-13 1650	X GW	XXXXX		
4 [305] - EB	2-21-13 1710	X GW	XXXX		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14 RELINQUISHED BY DATE/TIME	RECEIVED BY	DATE/TI	ме	PROJECT INFORMATION	RECEIPT
1:	1: V/ 1	122/13	PROJECT NAME:	sea/s	Total # of Containers
2:	2:	1040	PROJECT #:		Turnaround Time Request Standard 5 Business Days
3: 	[5]		SEND REPORT TO:	ol S. Slappey Drive lbany, Ga TBerryman @bruncaldi	2 Business Day Rush Next Business Day Rush
SPECIAL INSTRUCTIONS/COMMENTS:	SHIPM OUT / /	ÆNT METHOD VIA:	INVOICE TO:	·	Same Day Rush (auth req.)
1-texa vallat 4 111valent ch and	IN / /	VIA:			STATE PROGRAM (if any):
no isosi sanolas un color icoda	CLIENT FedEx	OTHER OTHER	OLIOTE #:	PO#·	E-mail? (ŷ/N; Fax?_Y/N DATA PACKAGE: I (II) III IV
Hexavalent + Trivalent Crto be analyzed too, expressed Shipped no 13051 samples in coder, ignore MPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CO	ONSIDERED RECEIVED	THE NEXT BUSINESS DAY. IF	TURNAROUND TIME IS	NOT INDICATED, AES WILL PROCEED	WITH STANDARD TAT OF SAMPLES.

Client: BROWN AND CALDWELL

Project: MacGregor Golf Case Narrative

Lab ID: 1302I17

Hexavalent Chromium Analysis by Method 7196:

Due to sample matrix, sample 1302I17-001C required dilution during analysis resulting in elevated reporting limits.

27-Feb-13

Date:

Client:BROWN AND CALDWELLClient Sample ID:13052-SPARTA-MW-2Project Name:MacGregor GolfCollection Date:2/21/2013 4:50:00 PM

Date:

27-Feb-13

Lab ID: 1302I17-001 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C				(SW	/3005A)			
Chromium	BRL	0.0100		mg/L	172862	1	02/26/2013 10:08	MR
Hexavalent Chromium in Water SW7196A	1							
Chromium as Cr+3	0.0101	0.0100		mg/L	R239160	1	02/22/2013 16:00	CG
Chromium, Hexavalent	BRL	0.0500		mg/L	R239160	5	02/22/2013 16:00	CG
METALS, TOTAL SW6010C				(SW	/3010A)			
Chromium	0.0101	0.0100		mg/L	172823	1	02/26/2013 10:50	MR

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

Less than Result value

J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL Client Sample ID: 13052-EB

Project Name: MacGregor Golf Collection Date: 2/21/2013 5:10:00 PM

Lab ID: 1302I17-002 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C				(SW	/3005A)			
Chromium	BRL	0.0100		mg/L	172862	1	02/26/2013 10:33	MR
Hexavalent Chromium in Water SW7196	δA							
Chromium as Cr+3	BRL	0.0100		mg/L	R239160	1	02/22/2013 16:00	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R239160	1	02/22/2013 16:00	CG
METALS, TOTAL SW6010C				(SW	/3010A)			
Chromium	BRL	0.0100		mg/L	172823	1	02/26/2013 12:46	MR

Date:

27-Feb-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Sample/Cooler Receipt Checklist

Client Brown & Caldwell		Work Orde	r Number 1312 F 17
Checklist completed by Am B Signature Dat	122/13 e		
Carrier name: FedEx UPS Courier Client U	S Mail Othe	er	_
Shipping container/cooler in good condition?	Yes _	No	Not Present
Custody seals intact on shipping container/cooler?	,		Not Present
Custody seals intact on sample bottles?			Not Present
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes /	No	
Cooler #1 3.3° Cooler #2 Cooler #3	Cooler #4 _	Coc	oler#5 Cooler #6
Chain of custody present?	Yes _		
Chain of custody signed when relinquished and received?	Yes You	No _	
Chain of custody agrees with sample labels?	Yes _	No _	
Samples in proper container/bottle?	Yes	No _	
Sample containers intact?	Yes	No _	
Sufficient sample volume for indicated test?	Yes _	No	
All samples received within holding time?	Yes _		
Was TAT marked on the COC?	Yes _		
Proceed with Standard TAT as per project history?			Not Applicable
Water - VOA vials have zero headspace? No VOA vials su			-
Water - pH acceptable upon receipt?			Not Applicable
Adjusted?	Chec	cked by	,)
Sample Condition: Good Other(Explain)			
(For diffusive samples or AIHA lead) Is a known blank includ			0 /

See Case Narrative for resolution of the Non-Conformance.

 $\verb|L|Quality Assurance| Checklists Procedures Sign-Off Templates| Checklists | Sample Receipt Checklists | Sample$

^{*} Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL

Project: MacGregor Golf

Lab Order: 1302117

Dates Report

Date: 27-Feb-13

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1302I17-001A	13052-SPARTA-MW-2	2/21/2013 4:50:00PM	Groundwater	TOTAL METALS BY ICP		02/25/2013	02/26/2013
1302I17-001B	13052-SPARTA-MW-2	2/21/2013 4:50:00PM	Groundwater	DISSOLVED METALS BY ICP		02/25/2013	02/26/2013
1302I17-001C	13052-SPARTA-MW-2	2/21/2013 4:50:00PM	Groundwater	Hexavalent Chromium			02/22/2013
1302I17-002A	13052-EB	2/21/2013 5:10:00PM	Groundwater	TOTAL METALS BY ICP		02/25/2013	02/26/2013
1302I17-002B	13052-EB	2/21/2013 5:10:00PM	Groundwater	DISSOLVED METALS BY ICP		02/25/2013	02/26/2013
1302I17-002C	13052-EB	2/21/2013 5:10:00PM	Groundwater	Hexavalent Chromium			02/22/2013

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302I17

ANALYTICAL QC SUMMARY REPORT

BatchID: 172823

Date:

27-Feb-13

Sample ID: MB-172823	Client ID:	METALC TOTAL	CW/C010C		Uni				5/2013	Run No: 239	
SampleType: MBLK	TestCode:	METALS, TOTAL	SW6010C		Bat	chID: 172823	Ana	alysis Date: 02/26	5/2013	Seq No: 500	5361
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Lim	it Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
Sample ID: LCS-172823	Client ID:				Uni	its: mg/L	Pre	p Date: 02/25	5/2013	Run No: 239	076
SampleType: LCS	TestCode:	METALS, TOTAL	SW6010C		Bat	chID: 172823	Ana	alysis Date: 02/26	5/2013	Seq No: 500	5360
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Lim	it Qual
Chromium	0.9949	0.0100	1	0	99.5	80	120	0	0	0	
Sample ID: 1302I17-001AMS	Client ID:	13052-SPARTA-N	IW-2		Uni	ts: mg/L	Pre	p Date: 02/25	5/2013	Run No: 239	076
SampleType: MS	TestCode:	METALS, TOTAL	SW6010C		Bat	chID: 172823	Ana	alysis Date: 02/26	5/2013	Seq No: 500	5371
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Lim	it Qual
Chromium	0.9750	0.0100	1	0.01006	96.5	75	125	0	0	0	
Sample ID: 1302I17-001AMSD	Client ID:	13052-SPARTA-M	IW-2		Uni	its: mg/L	Pre	p Date: 02/25	5/2013	Run No: 239	076
SampleType: MSD	TestCode:	METALS, TOTAL	SW6010C		Bat	chID: 172823	Ana	alysis Date: 02/26	5/2013	Seq No: 500	5374
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Lim	it Qual
Chromium	0.9768	0.0100	1	0.01006	96.7	75	125	0.9750	0.183	3 20	

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302I17

ANALYTICAL QC SUMMARY REPORT

BatchID: 172862

Date:

27-Feb-13

Sample ID: MB-172862 SampleType: MBLK	Client ID: TestCode:	METALS, DISSOLVED	SW6010C		Uni Bat	its: mg/L tchID: 172862		p Date: 02/ alysis Date: 02/	/25/2013 /26/2013	Run No: 23 Seq No: 50	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	ıl %RPD	RPD Li	nit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0	
Sample ID: LCS-172862 SampleType: LCS	Client ID: TestCode:	METALS, DISSOLVED	SW6010C		Uni Bat	its: mg/L tchID: 172862		p Date: 02/ alysis Date: 02/	/25/2013 /26/2013	Run No: 23 Seq No: 50	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	ıl %RPD	RPD Li	nit Qual
Chromium	0.9797	0.0100	1	0	98	80	120	0	0	0	
Sample ID: 1302I17-001BMS SampleType: MS		13052-SPARTA-MW METALS, DISSOLVED	7-2 SW6010C		Uni Bat	its: mg/L tchID: 172862		p Date: 02/ alysis Date: 02/		Run No: 23 Seq No: 50	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	ıl %RPD	RPD Li	nit Qual
Chromium	0.9409	0.0100	1	0.003794	93.7	75	125	0	0	0	
Sample ID: 1302I17-001BMSD SampleType: MSD		13052-SPARTA-MW METALS, DISSOLVED	V-2 SW6010C		Uni Bat	its: mg/L tchID: 172862		p Date: 02/ alysis Date: 02/		Run No: 23 Seq No: 50	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	ıl %RPD	RPD Li	nit Qual
Chromium	0.9583	0.0100	1	0.003794	95.4	75	125	0.9409	1.84	20	

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Client: BROWN AND CALDWELL

MacGregor Golf **Project Name:**

Workorder: 1302I17

ANALYTICAL QC SUMMARY REPORT

BatchID: R239160

Date:

27-Feb-13

Sample ID: MB-R239160 SampleType: MBLK	Client ID: TestCode:	Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R23916		Date: O Date: 02/22	/2013	Run No: 239160 Seq No: 5006945
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Limit Qual
Chromium, Hexavalent	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-R239160 SampleType: LCS	Client ID: TestCode:	Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R23916		Date: o Date: 02/22/	/2013	Run No: 239160 Seq No: 5006946
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5111	0.0100	0.5	0	102	90	110	0	0	0
Sample ID: 1302I17-002CMS SampleType: MS		13052-EB Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R23916		Date: llysis Date: 02/22/	/2013	Run No: 239160 Seq No: 5006949
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.4938	0.0100	0.5	0.003100	98.1	85	115	0	0	0
Sample ID: 1302I17-002CMSD SampleType: MSD		13052-EB Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R23916		Date: o Date: 02/22/	/2013	Run No: 239160 Seq No: 5006951
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.4909	0.0100	0.5	0.003100	97.6	85	115	0.4938	0.589	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Rpt Lim Reporting Limit

Estimated value detected below Reporting Limit

S Spike Recovery outside limits due to matrix

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

ANALYTICAL ENVIRONMENTAL SERVICES, INC.



March 05, 2013

Sarah Jones BROWN AND CALDWELL 990 Hammond Drive Atlanta GA 30328

TEL: (770) 394-2997 FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones: Order No: 1302K13

Analytical Environmental Services, Inc. received 22 samples on 2/25/2013 3:14:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- -NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- -AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Project Manager

Taralesback

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

Work Order:	1302H13

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

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COMP	ADDRESS:	000 **	10.	0 2 400		ANALYSIS REQUESTED							Visit our website			
Brown and Caldwell		990 Hammo Atlanta, GA		e Suite 400,											www.aesatlanta.com	
															to check on the status of	- 1
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6 13053 -6P-1-5-6		0950	х	So	x	X			\sqcup	\dashv						1
7 13033-68-1 14-15		0955	х	So	<u> x</u>	X			1				_			
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SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION ()F REPORT UN	LESS OTHER	<u>ARRANC</u>	EMENTS ARE	IADE.											

Work Order:

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Date:	Page	of <u>3</u>

COMP		ODRESS: 990 Hammond Drive Ste 400,								Visit our website								
Brown and Caldwell		Atlanta, GA	u Diiv	o bie 4													www.aesatlanta.com to check on the status of	ıts
rnone.	FAX:	11.		1		ш	ride										your results, place bottle orders, etc.	ntaine
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6 13053-GP-4-17-18	2/22/2013	1220			GW	X	X		_				_				Hold	3
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8 13053-GP-5-7-8	2/22/2013	1340			GW	X.	X V							_			Hold	3
9 13053-GP-5-12-13	2/22/2013	1350			GW	X	X						一	_			Hold	3
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Page 3 of 44

ANALYTICAL ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

3785 Presidential Parkway, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Work Order: 130 2443
Page 3 of 5

COMP Brown and Caldwell	ADDRESS: 990 Hammond Drive Ste 400,					ANALYSIS REQUESTED										Visit our website			
PHONE:	FAX:	Atlanta, GA										-	ì					www.aesatlanta.com to check on the status of	
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3 13053-GP-7-11-12	2/22/2013	1445	х		GW	x	x											Hold	3
4 13053-GP-7-17-18	2/22/2013	1450	х		GW	x	x	Ш										Hold	3
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6 13053-GP-8-9-10	2/22/2013	1510	х		GW	х	х	Ш										Hold	3
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Client: BROWN AND CALDWELL

Project: MacGregor Golf Case Narrative

Lab ID: 1302K13

Sample 1302K13-001A has 13053-B4-0-5 on sample label but came in set with vials. Sample 1302K13-006B has 13053-GP-1-4-5 on label but came in set

Date:

5-Mar-13

Volatile Organic Compounds Analysis by Method 8260B:

Percent recovery for the internal standard compound 1,4-Dichlorobenzene-d4 on sample 1302K13-013A was outside control limits biased low due to suspected matrix interference.

Percent recovery for the internal standard compounds Chlorobenzene-d5 & 1,4-Dichlorobenzene-d4 on sample 1302K13-006A were outside control limits biased low due to suspected matrix interference.

Client: BROWN AND CALDWELL Client Sample ID: 13053-B4-3-4

Project Name: MacGregor Golf Collection Date: 2/22/2013 8:55:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-001 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW:	5035)			
cis-1,2-Dichloroethene	1500	310		ug/Kg-dry	173049	50	03/02/2013 00:27	MD
Vinyl chloride	BRL	8.7		ug/Kg-dry	172966	1	02/28/2013 23:58	MD
Surr: 4-Bromofluorobenzene	89.3	63.8-133		%REC	173049	50	03/02/2013 00:27	MD
Surr: 4-Bromofluorobenzene	95.6	63.8-133		%REC	172966	1	02/28/2013 23:58	MD
Surr: Dibromofluoromethane	94.9	74.3-130		%REC	173049	50	03/02/2013 00:27	MD
Surr: Dibromofluoromethane	104	74.3-130		%REC	172966	1	02/28/2013 23:58	MD
Surr: Toluene-d8	96.6	72.8-122		%REC	173049	50	03/02/2013 00:27	MD
Surr: Toluene-d8	95.8	72.8-122		%REC	172966	1	02/28/2013 23:58	MD
PERCENT MOISTURE D2216								
Percent Moisture	11.5	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-B4-7-8

Project Name: MacGregor Golf Collection Date: 2/22/2013 9:05:00 AM

Lab ID: 1302K13-002 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	110	5.3		ug/Kg-dry	172966	1	03/01/2013 00:26	MD
Vinyl chloride	BRL	11		ug/Kg-dry	172966	1	03/01/2013 00:26	MD
Surr: 4-Bromofluorobenzene	100	63.8-133		%REC	172966	1	03/01/2013 00:26	MD
Surr: Dibromofluoromethane	99.4	74.3-130		%REC	172966	1	03/01/2013 00:26	MD
Surr: Toluene-d8	97.3	72.8-122		%REC	172966	1	03/01/2013 00:26	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.9	0		wt%	R239463	1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-B4-10-11

Project Name: MacGregor Golf Collection Date: 2/22/2013 9:15:00 AM

Lab ID: 1302K13-003 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	140	6.3		ug/Kg-dry	172966	1	03/01/2013 00:54	MD
Vinyl chloride	BRL	13		ug/Kg-dry	172966	1	03/01/2013 00:54	MD
Surr: 4-Bromofluorobenzene	97.3	63.8-133		%REC	172966	1	03/01/2013 00:54	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	172966	1	03/01/2013 00:54	MD
Surr: Toluene-d8	99.9	72.8-122		%REC	172966	1	03/01/2013 00:54	MD
PERCENT MOISTURE D2216								
Percent Moisture	29.5	0		wt%	R239463	1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-B4-15-19

Project Name: MacGregor Golf Collection Date: 2/22/2013 9:20:00 AM

Lab ID: 1302K13-004 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	130	7.3		ug/Kg-dry	172966	1	03/01/2013 01:22	MD
Vinyl chloride	BRL	15		ug/Kg-dry	172966	1	03/01/2013 01:22	MD
Surr: 4-Bromofluorobenzene	97.8	63.8-133		%REC	172966	1	03/01/2013 01:22	MD
Surr: Dibromofluoromethane	102	74.3-130		%REC	172966	1	03/01/2013 01:22	MD
Surr: Toluene-d8	98.9	72.8-122		%REC	172966	1	03/01/2013 01:22	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.0	0		wt%	R239463	1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-1-4-5

Project Name: MacGregor Golf Collection Date: 2/22/2013 9:40:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-005 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW82601	3			(SW:	5035)			
cis-1,2-Dichloroethene	13000	2800		ug/Kg-dry	173049	500	03/04/2013 13:05	NP
Vinyl chloride	BRL	8.9		ug/Kg-dry	172966	1	03/01/2013 01:50	MD
Surr: 4-Bromofluorobenzene	86.5	63.8-133		%REC	173049	500	03/04/2013 13:05	NP
Surr: 4-Bromofluorobenzene	84.8	63.8-133		%REC	172966	1	03/01/2013 01:50	MD
Surr: Dibromofluoromethane	108	74.3-130		%REC	173049	500	03/04/2013 13:05	NP
Surr: Dibromofluoromethane	102	74.3-130		%REC	172966	1	03/01/2013 01:50	MD
Surr: Toluene-d8	100	72.8-122		%REC	173049	500	03/04/2013 13:05	NP
Surr: Toluene-d8	96.6	72.8-122		%REC	172966	1	03/01/2013 01:50	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.0	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-1-5-6

Project Name: MacGregor Golf Collection Date: 2/22/2013 9:50:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-006 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	120000	6600		ug/Kg-dry	173049	1000	03/04/2013 12:34	NP
Vinyl chloride	23	13		ug/Kg-dry	173049	1	03/01/2013 02:19	MD
Surr: 4-Bromofluorobenzene	78.7	63.8-133		%REC	173049	1	03/01/2013 02:19	MD
Surr: 4-Bromofluorobenzene	90.3	63.8-133		%REC	173049	1000	03/04/2013 12:34	NP
Surr: Dibromofluoromethane	104	74.3-130		%REC	173049	1000	03/04/2013 12:34	NP
Surr: Dibromofluoromethane	111	74.3-130		%REC	173049	1	03/01/2013 02:19	MD
Surr: Toluene-d8	88.4	72.8-122		%REC	173049	1	03/01/2013 02:19	MD
Surr: Toluene-d8	99.4	72.8-122		%REC	173049	1000	03/04/2013 12:34	NP
PERCENT MOISTURE D2216								
Percent Moisture	30.1	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client:BROWN AND CALDWELLClient Sample ID:13053-GP-1-14-15Project Name:MacGregor GolfCollection Date:2/22/2013 9:55:00 AM

Lab ID: 1302K13-007 **Matrix:** Soil

Analyses	Result	Reporting Limit Qua	al Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260E	3		(SW	(5035)			
cis-1,2-Dichloroethene	110	6.9	ug/Kg-dry	172966	1	03/01/2013 10:52	MD
Vinyl chloride	BRL	14	ug/Kg-dry	172966	1	03/01/2013 10:52	MD
Surr: 4-Bromofluorobenzene	95.5	63.8-133	%REC	172966	1	03/01/2013 10:52	MD
Surr: Dibromofluoromethane	95.5	74.3-130	%REC	172966	1	03/01/2013 10:52	MD
Surr: Toluene-d8	97.4	72.8-122	%REC	172966	1	03/01/2013 10:52	MD
PERCENT MOISTURE D2216							
Percent Moisture	21.3	0	wt%	R239463	3 1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-1-19-20

Project Name:MacGregor GolfCollection Date:2/22/2013 10:00:00 AMLab ID:1302K13-008Matrix:Soil

Date:

5-Mar-13

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	(5035)			
cis-1,2-Dichloroethene	580	330		ug/Kg-dry	173049	50	03/01/2013 23:02	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	172966	1	03/01/2013 03:15	MD
Surr: 4-Bromofluorobenzene	86.8	63.8-133		%REC	173049	50	03/01/2013 23:02	MD
Surr: 4-Bromofluorobenzene	98.5	63.8-133		%REC	172966	1	03/01/2013 03:15	MD
Surr: Dibromofluoromethane	91.6	74.3-130		%REC	173049	50	03/01/2013 23:02	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	172966	1	03/01/2013 03:15	MD
Surr: Toluene-d8	95.4	72.8-122		%REC	173049	50	03/01/2013 23:02	MD
Surr: Toluene-d8	98.7	72.8-122		%REC	172966	1	03/01/2013 03:15	MD
PERCENT MOISTURE D2216								
Percent Moisture	12.0	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-2 4-5

Project Name: MacGregor Golf Collection Date: 2/22/2013 10:25:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-009 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW:	5035)			
cis-1,2-Dichloroethene	66	4.7		ug/Kg-dry	172966	1	03/01/2013 03:43	MD
Vinyl chloride	BRL	9.3		ug/Kg-dry	172966	1	03/01/2013 03:43	MD
Surr: 4-Bromofluorobenzene	89.2	63.8-133		%REC	172966	1	03/01/2013 03:43	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	172966	1	03/01/2013 03:43	MD
Surr: Toluene-d8	95.8	72.8-122		%REC	172966	1	03/01/2013 03:43	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.2	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-2 7-8

Project Name: MacGregor Golf Collection Date: 2/22/2013 10:30:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-010 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	BRL	6.0		ug/Kg-dry	172966	1	03/01/2013 04:12	MD
Vinyl chloride	BRL	12		ug/Kg-dry	172966	1	03/01/2013 04:12	MD
Surr: 4-Bromofluorobenzene	89.4	63.8-133		%REC	172966	1	03/01/2013 04:12	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	172966	1	03/01/2013 04:12	MD
Surr: Toluene-d8	97.6	72.8-122		%REC	172966	1	03/01/2013 04:12	MD
PERCENT MOISTURE D2216								
Percent Moisture	32.2	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Percent Moisture

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-2 14-15

26.6

Project Name:MacGregor GolfCollection Date:2/22/2013 10:40:00 AMLab ID:1302K13-011Matrix:Soil

Date:

5-Mar-13

03/04/2013 12:30

AS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analys
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	1000	230		ug/Kg-dry	173049	50	03/01/2013 22:33	MD
Vinyl chloride	BRL	14		ug/Kg-dry	173013	1	03/01/2013 05:36	MD
Surr: 4-Bromofluorobenzene	86.6	63.8-133		%REC	173049	50	03/01/2013 22:33	MD
Surr: 4-Bromofluorobenzene	93.5	63.8-133		%REC	173013	1	03/01/2013 05:36	MD
Surr: Dibromofluoromethane	96.9	74.3-130		%REC	173013	1	03/01/2013 05:36	MD
Surr: Dibromofluoromethane	106	74.3-130		%REC	173049	50	03/01/2013 22:33	MD
Surr: Toluene-d8	94.3	72.8-122		%REC	173049	50	03/01/2013 22:33	MD
Surr: Toluene-d8	97.8	72.8-122		%REC	173013	1	03/01/2013 05:36	MD

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

wt%

R239463

Client:BROWN AND CALDWELLClient Sample ID:13053-GP-2 18-19Project Name:MacGregor GolfCollection Date:2/22/2013 10:50:00

Project Name:MacGregor GolfCollection Date:2/22/2013 10:50:00 AMLab ID:1302K13-012Matrix:Soil

Date:

5-Mar-13

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	540	220		ug/Kg-dry	173049	50	03/01/2013 22:05	MD
Vinyl chloride	BRL	6.7		ug/Kg-dry	173013	1	03/01/2013 06:05	MD
Surr: 4-Bromofluorobenzene	89.1	63.8-133		%REC	173049	50	03/01/2013 22:05	MD
Surr: 4-Bromofluorobenzene	98.1	63.8-133		%REC	173013	1	03/01/2013 06:05	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	173049	50	03/01/2013 22:05	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	173013	1	03/01/2013 06:05	MD
Surr: Toluene-d8	94.9	72.8-122		%REC	173049	50	03/01/2013 22:05	MD
Surr: Toluene-d8	98.9	72.8-122		%REC	173013	1	03/01/2013 06:05	MD
PERCENT MOISTURE D2216								
Percent Moisture	14.3	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-3 4-5

Project Name: MacGregor Golf Collection Date: 2/22/2013 11:10:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-013 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW:	5035)			
cis-1,2-Dichloroethene	BRL	4.5		ug/Kg-dry	173013	1	03/01/2013 06:33	MD
Vinyl chloride	BRL	9.0		ug/Kg-dry	173013	1	03/01/2013 06:33	MD
Surr: 4-Bromofluorobenzene	83.1	63.8-133		%REC	173013	1	03/01/2013 06:33	MD
Surr: Dibromofluoromethane	103	74.3-130		%REC	173013	1	03/01/2013 06:33	MD
Surr: Toluene-d8	92.4	72.8-122		%REC	173013	1	03/01/2013 06:33	MD
PERCENT MOISTURE D2216								
Percent Moisture	21.1	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-3 7-8

Project Name: MacGregor Golf Collection Date: 2/22/2013 11:20:00 AM

Date:

5-Mar-13

Lab ID: 1302K13-014 Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	100	4.0		ug/Kg-dry	173013	1	03/01/2013 07:01	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	173013	1	03/01/2013 07:01	MD
Surr: 4-Bromofluorobenzene	94.2	63.8-133		%REC	173013	1	03/01/2013 07:01	MD
Surr: Dibromofluoromethane	100	74.3-130		%REC	173013	1	03/01/2013 07:01	MD
Surr: Toluene-d8	99.8	72.8-122		%REC	173013	1	03/01/2013 07:01	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.9	0		wt%	R239463	1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client:BROWN AND CALDWELLClient Sample ID:13053-GP-3-14-15Project Name:MacGregor GolfCollection Date:2/22/2013 11:25:00

 Project Name:
 MacGregor Golf
 Collection Date:
 2/22/2013 11:25:00 AM

 Lab ID:
 1302K13-015
 Matrix:
 Soil

Date:

5-Mar-13

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	380	230		ug/Kg-dry	173049	50	03/01/2013 23:30	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	173013	1	03/01/2013 07:29	MD
Surr: 4-Bromofluorobenzene	85.3	63.8-133		%REC	173049	50	03/01/2013 23:30	MD
Surr: 4-Bromofluorobenzene	99.9	63.8-133		%REC	173013	1	03/01/2013 07:29	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	173049	50	03/01/2013 23:30	MD
Surr: Dibromofluoromethane	101	74.3-130		%REC	173013	1	03/01/2013 07:29	MD
Surr: Toluene-d8	95	72.8-122		%REC	173049	50	03/01/2013 23:30	MD
Surr: Toluene-d8	99.1	72.8-122		%REC	173013	1	03/01/2013 07:29	MD
PERCENT MOISTURE D2216								
Percent Moisture	26.0	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client:BROWN AND CALDWELLClient Sample ID:13053-GP-3-17-18Project Name:MacGregor GolfCollection Date:2/22/2013 11:30:00 AM

Date:

5-Mar-13

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	82	5.4		ug/Kg-dry	173013	1	03/01/2013 07:58	MD
Vinyl chloride	BRL	11		ug/Kg-dry	173013	1	03/01/2013 07:58	MD
Surr: 4-Bromofluorobenzene	98.1	63.8-133		%REC	173013	1	03/01/2013 07:58	MD
Surr: Dibromofluoromethane	105	74.3-130		%REC	173013	1	03/01/2013 07:58	MD
Surr: Toluene-d8	97.8	72.8-122		%REC	173013	1	03/01/2013 07:58	MD
PERCENT MOISTURE D2216								
Percent Moisture	30.6	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-4-3-4

Project Name: MacGregor Golf Collection Date: 2/22/2013 12:00:00 PM

Date:

5-Mar-13

Lab ID: 1302K13-017 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst			
TCL VOLATILE ORGANICS SW8260B	(SW5035)										
cis-1,2-Dichloroethene	1700	180		ug/Kg-dry	173049	50	03/02/2013 03:35	GK			
Vinyl chloride	33	7.4		ug/Kg-dry	173013	1	03/01/2013 11:20	MD			
Surr: 4-Bromofluorobenzene	96.6	63.8-133		%REC	173049	50	03/02/2013 03:35	GK			
Surr: 4-Bromofluorobenzene	96.7	63.8-133		%REC	173013	1	03/01/2013 11:20	MD			
Surr: Dibromofluoromethane	96.9	74.3-130		%REC	173049	50	03/02/2013 03:35	GK			
Surr: Dibromofluoromethane	95.3	74.3-130		%REC	173013	1	03/01/2013 11:20	MD			
Surr: Toluene-d8	103	72.8-122		%REC	173049	50	03/02/2013 03:35	GK			
Surr: Toluene-d8	97	72.8-122		%REC	173013	1	03/01/2013 11:20	MD			
PERCENT MOISTURE D2216											
Percent Moisture	10.8	0		wt%	R239463	1	03/04/2013 12:30	AS			

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-4-9-10

Project Name:MacGregor GolfCollection Date:2/22/2013 12:05:00 PMLab ID:1302K13-018Matrix:Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	BRL	5.9		ug/Kg-dry	173013	1	03/01/2013 11:48	MD
Vinyl chloride	BRL	12		ug/Kg-dry	173013	1	03/01/2013 11:48	MD
Surr: 4-Bromofluorobenzene	98.2	63.8-133		%REC	173013	1	03/01/2013 11:48	MD
Surr: Dibromofluoromethane	105	74.3-130		%REC	173013	1	03/01/2013 11:48	MD
Surr: Toluene-d8	99.4	72.8-122		%REC	173013	1	03/01/2013 11:48	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.2	0		wt%	R239463	1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client:BROWN AND CALDWELLClient Sample ID:13053-GP-4-14-15Project Name:MacGregor GolfCollection Date:2/22/2013 12:15:00 PM

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	BRL	5.1		ug/Kg-dry	173013	1	03/01/2013 12:17	MD
Vinyl chloride	BRL	10		ug/Kg-dry	173013	1	03/01/2013 12:17	MD
Surr: 4-Bromofluorobenzene	96.3	63.8-133		%REC	173013	1	03/01/2013 12:17	MD
Surr: Dibromofluoromethane	98.6	74.3-130		%REC	173013	1	03/01/2013 12:17	MD
Surr: Toluene-d8	99.8	72.8-122		%REC	173013	1	03/01/2013 12:17	MD
PERCENT MOISTURE D2216								
Percent Moisture	1.63	0		wt%	R239463	3 1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Client:BROWN AND CALDWELLClient Sample ID:13053-GP-4-17-18Project Name:MacGregor GolfCollection Date:2/22/2013 12:20:00 PM

Lab ID: 1302K13-020 Matrix: Soil

Analyses	Result	Reporting Limit Qua	al Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B			(SW	(5035)			
cis-1,2-Dichloroethene	75	5.7	ug/Kg-dry	173013	1	03/01/2013 12:45	MD
Vinyl chloride	BRL	11	ug/Kg-dry	173013	1	03/01/2013 12:45	MD
Surr: 4-Bromofluorobenzene	96.7	63.8-133	%REC	173013	1	03/01/2013 12:45	MD
Surr: Dibromofluoromethane	97	74.3-130	%REC	173013	1	03/01/2013 12:45	MD
Surr: Toluene-d8	98.3	72.8-122	%REC	173013	1	03/01/2013 12:45	MD
PERCENT MOISTURE D2216							
Percent Moisture	13.1	0	wt%	R239463	3 1	03/04/2013 12:30	AS

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client:BROWN AND CALDWELLClient Sample ID:TRIP BLANKProject Name:MacGregor GolfCollection Date:2/22/2013

Lab ID: 1302K13-037 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW82601	В			(SW	/5030B)			
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172953	1	02/27/2013 19:11	GK
Vinyl chloride	BRL	2.0		ug/L	172953	1	02/27/2013 19:11	GK
Surr: 4-Bromofluorobenzene	98.2	64.6-123		%REC	172953	1	02/27/2013 19:11	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	172953	1	02/27/2013 19:11	GK
Surr: Toluene-d8	101	77.8-120		%REC	172953	1	02/27/2013 19:11	GK

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-EB

Project Name: MacGregor Golf Collection Date: 2/22/2013 4:00:00 PM

Lab ID: 1302K13-038 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260E	3			(SW	(5030B)			
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172953	1	02/27/2013 19:40	GK
Vinyl chloride	BRL	2.0		ug/L	172953	1	02/27/2013 19:40	GK
Surr: 4-Bromofluorobenzene	99.4	64.6-123		%REC	172953	1	02/27/2013 19:40	GK
Surr: Dibromofluoromethane	101	76.6-133		%REC	172953	1	02/27/2013 19:40	GK
Surr: Toluene-d8	103	77.8-120		%REC	172953	1	02/27/2013 19:40	GK

Date:

5-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

Sample/Cooler Receipt Checklist

Client Brown + Caldue		Work Orde	r Number	13024(13
Checklist completed by Dat	2/25/18			
Carrier name: FedEx UPS Courier Client U	S Mail Other	r	_	
Shipping container/cooler in good condition?	Yes _	No	Not Present	
Custody seals intact on shipping container/cooler?	Yes	No	Not Present	
Custody seals intact on sample bottles?	Yes	No _	Not Present	
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes 🔽	No		
Cooler #1 3.1 Cooler #2 3.2 Cooler #3	_ Cooler #4 _	Coc	oler#5	Cooler #6
Chain of custody present?	Yes _	No _		-
Chain of custody signed when relinquished and received?	Yes _	No		
Chain of custody agrees with sample labels?	Yes	No _		
Samples in proper container/bottle?	Yes _	No		
Sample containers intact?	Yes _	No _		
Sufficient sample volume for indicated test?	Yes _	No		
All samples received within holding time?	Yes	No		
Was TAT marked on the COC?	Yes	No		
Proceed with Standard TAT as per project history?	Yes	No	Not Applicable	
Water - VOA vials have zero headspace? No VOA vials su	bmitted	Yes		
Water - pH acceptable upon receipt?	Yes _	No _	Not Applicable	
Adjusted?	Chec	ked by	m t	
Sample Condition: GoodOther(Explain)				
(For diffusive samples or AIHA lead) Is a known blank includ	ed? Yes	N	lo /	

See Case Narrative for resolution of the Non-Conformance.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklists

^{*} Samples do not have to comply with the given range for certain parameters.

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 172953

Sample ID: MB-172953 SampleType: MBLK	Client ID: TestCode: TC	L VOLATILE ORGA	NICS SW8260	В	Uni Bat	ts: ug/L chID: 172953		Date: 02/27 lysis Date: 02/27		un No: 239201 eq No: 5008020
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
2-Butanone	BRL	50	0	0	0	0	0	0	0	0
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0
Acetone	BRL	50	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
Chloroethane	BRL	10	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0
Chloromethane	BRL	10	0	0	0	0	0	0	0	0

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172953

Date:

5-Mar-13

Sample ID: MB-172953 SampleType: MBLK	Client ID: TestCode: TO	CL VOLATILE ORGA	NICS SW8260	В	Un Bat	its: ug/L chID: 172953		Date: 02/27 lysis Date: 02/27		un No: 239201 eq No: 5008020
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
Freon-113	BRL	10	0	0	0	0	0	0	0	0
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Styrene	BRL	5.0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	50.38	0	50	0	101	64.6	123	0	0	0
Surr: Dibromofluoromethane	49.56	0	50	0	99.1	76.6	133	0	0	0
Surr: Toluene-d8	50.83	0	50	0	102	77.8	120	0	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 172953

Sample ID: LCS-172953 Client ID: SampleType: LCS TestCode: TCL VOLATILE ORGANICS SW8260B					Uni				7/2013	Run No: 239201
SampleType: LCS	TestCode: TCL	VOLATILE ORGA	ANICS SW8200	В	Bat	chID: 172953	Ana	alysis Date: 02/27	//2013	Seq No: 5008021
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qua
,1-Dichloroethene	54.35	5.0	50	0	109	61.1	142	0	0	0
Benzene	47.15	5.0	50	0	94.3	73.5	130	0	0	0
Chlorobenzene	44.97	5.0	50	0	89.9	72.4	123	0	0	0
Coluene	46.04	5.0	50	0	92.1	73.6	130	0	0	0
richloroethene	45.12	5.0	50	0	90.2	70	135	0	0	0
Surr: 4-Bromofluorobenzene	50.61	0	50	0	101	64.6	123	0	0	0
Surr: Dibromofluoromethane	50.92	0	50	0	102	76.6	133	0	0	0
Surr: Toluene-d8	51.21	0	50	0	102	77.8	120	0	0	0
Sample ID: 1302K54-001AMS SampleType: MS	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/L chID: 172953		Date: 02/27 alysis Date: 02/27	7/2013 7/2013	Run No: 239201 Seq No: 5008128
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qua
,1-Dichloroethene	54.44	5.0	50	0	109	60	168	0	0	0
Benzene	47.53	5.0	50	0	95.1	66.6	148	0	0	0
Chlorobenzene	45.43	5.0	50	0	90.9	71.9	135	0	0	0
oluene	164.6	5.0	50	119.7	89.7	68	149	0	0	0
richloroethene	45.21	5.0	50	0	90.4	71.1	154	0	0	0
Surr: Dibromofluoromethane	51.96	0	50	0	104	76.6	133	0	0	0
Surr: Toluene-d8	51.37	0	50	0	103	77.8	120	0	0	0
Sample ID: 1302K54-001AMSD SampleType: MSD	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Uni Bat	ts: ug/L chID: 172953		Date: 02/27	7/2013 7/2013	Run No: 239201 Seq No: 5008139
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qua
,1-Dichloroethene	53.52	5.0	50	0	107	60	168	54.44	1.7	18.6
Benzene	46.49	5.0	50	0	93	66.6	148	47.53	2.21	20
Chlorobenzene	43.79	5.0	50	0	87.6	71.9	135	45.43	3.68	20
ualifiers: > Greater than Result valu BRL Below reporting limit	ne		than Result value	·						
1 0	ed below Reporting Limit			ated (value above quantit yte not NELAC certified	not NELAC certified R PD outside limits due to matrix				exceeded	
Rpt Lim Reporting Limit	ca colon reporting Little			Recovery outside limits	lue to matrix		K	ia 2 outside mints due to	uura	

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 172953

Sample ID: 1302K54-001AMSD SampleType: MSD	Client ID: TestCode: TCL VOLATILE ORGANICS SW8260B					Units: ug/L BatchID: 172953		Prep Date: 02/27/2013 Analysis Date: 02/27/2013		Run No: 239201 Seq No: 5008139
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Toluene	160.2	5.0	50	119.7	80.9	68	149	164.6	2.72	20
Trichloroethene	43.45	5.0	50	0	86.9	71.1	154	45.21	3.97	20
Surr: Dibromofluoromethane	52.14	0	50	0	104	76.6	133	51.96	0	0
Surr: Toluene-d8	52.22	0	50	0	104	77.8	120	51.37	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172966

Date:

5-Mar-13

Sample ID: MB-172966 SampleType: MBLK	Client ID: TestCode: TCL VOLATILE ORGANICS SW8260B							p Date: 02/27/2013 Run No: 239211 alysis Date: 02/27/2013 Seq No: 5008337		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
2-Butanone	BRL	50	0	0	0	0	0	0	0	0
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0
Acetone	BRL	100	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0
Carbon disulfide	BRL	10	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
Chloroethane	BRL	10	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0
Chloromethane	BRL	10	0	0	0	0	0	0	0	0

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172966

Date:

5-Mar-13

Sample ID: MB-172966 Client ID: SampleType: MBLK TestCode: TCL VOLATILE ORGANICS SW8260B					2 2			Date: 02/27 lysis Date: 02/27		eq No: 239211
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
Freon-113	BRL	10	0	0	0	0	0	0	0	0
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Styrene	BRL	5.0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	47.49	0	50	0	95	63.8	133	0	0	0
Surr: Dibromofluoromethane	47.90	0	50	0	95.8	74.3	130	0	0	0
Surr: Toluene-d8	49.45	0	50	0	98.9	72.8	122	0	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Date: 5-Mar-13

Client: BROWN AND CALDWELL ANALYTICAL QC SUMMARY REPORT

Project Name: MacGregor Golf Workorder: 1302K13

BatchID: 172966

Sample ID: LCS-172966 SampleType: LCS	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW82601	В	Uni Bat	ts: ug/Kg chID: 172966		Date: 02/27 alysis Date: 02/27	7/2013 7/2013	Run No: 239211 Seq No: 5008339	
Sumple 1) per	10000000				24.				,_010	•	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual	
1,1-Dichloroethene	47.77	5.0	50	0	95.5	63.1	140	0	0	0	
Benzene	52.89	5.0	50	0	106	70.2	130	0	0	0	
Chlorobenzene	49.32	5.0	50	0	98.6	70	126	0	0	0	
Toluene	54.12	5.0	50	1.030	106	70.5	130	0	0	0	
Γrichloroethene	52.80	5.0	50	0	106	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	46.29	0	50	0	92.6	63.8	133	0	0	0	
Surr: Dibromofluoromethane	46.14	0	50	0	92.3	74.3	130	0	0	0	
Surr: Toluene-d8	49.51	0	50	0	99	72.8	122	0	0	0	
Sample ID: 1302L05-011AMS SampleType: MS	Client ID: TestCode: TCL	Client ID: TestCode: TCL VOLATILE ORGANICS SW8260B					Units: ug/Kg-dry Prep Date: 02/27/2013 BatchID: 172966 Analysis Date: 02/28/2013				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual	
1,1-Dichloroethene	56.11	6.4	63.95	0	87.7	58.8	157	0	0	0	
Benzene	62.04	6.4	63.95	0	97	66.3	139	0	0	0	
Chlorobenzene	58.31	6.4	63.95	0	91.2	67.8	131	0	0	0	
Γoluene	61.52	6.4	63.95	0.9351	94.7	66	138	0	0	0	
Trichloroethene	59.66	6.4	63.95	0	93.3	72.5	141	0	0	0	
Surr: 4-Bromofluorobenzene	62.09	0	63.95	0	97.1	63.8	133	0	0	0	
Surr: Dibromofluoromethane	62.04	0	63.95	0	97	74.3	130	0	0	0	
Surr: Toluene-d8	63.99	0	63.95	0	100	72.8	122	0	0	0	
Sample ID: 1302L05-011AMSD SampleType: MSD	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/Kg-c chID: 172966		Date: 02/27 alysis Date: 02/28	7/2013 3/2013	Run No: 239270 Seq No: 5009575	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual	
1,1-Dichloroethene	55.38	6.4	63.95	0	86.6	58.8	157	56.11	1.31	21.9	
Benzene	64.35	6.4	63.95	0	101	66.3	139	62.04	3.64	22.3	
BRL Below reporting limit	BRL Below reporting limit E Estimated (value above quantita J Estimated value detected below Reporting Limit N Analyte not NELAC certified				•		Н	Analyte detected in the ass Holding times for preparat RPD outside limits due to	ion or analysis		

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 172966

Date:

5-Mar-13

Sample ID: 1302L05-011AMSD	Client ID:				Uni	ts: ug/Kg-c	lry Prep	Date: 02/27	/2013	Run No: 239270
SampleType: MSD	TestCode: TCL	VOLATILE ORGA	NICS SW8260	В	Bat	chID: 172966	Ana	Analysis Date: 02/28/2013		Seq No: 5009575
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chlorobenzene	58.13	6.4	63.95	0	90.9	67.8	131	58.31	0.308	17.3
Toluene	62.84	6.4	63.95	0.9351	96.8	66	138	61.52	2.12	18.1
Trichloroethene	62.06	6.4	63.95	0	97	72.5	141	59.66	3.93	18.7
Surr: 4-Bromofluorobenzene	63.09	0	63.95	0	98.7	63.8	133	62.09	0	0
Surr: Dibromofluoromethane	63.97	0	63.95	0	100	74.3	130	62.04	0	0
Surr: Toluene-d8	64.13	0	63.95	0	100	72.8	122	63.99	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 173013

Sample ID: MB-173013 Client ID: SampleType: MBLK TestCode: TCL VOLATILE ORGANICS SW8260B					Un Bat	its: ug/Kg schID: 173013		Date: 02/28 / lysis Date: 02/28 /		un No: 239311 eq No: 5009716
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
2-Butanone	BRL	50	0	0	0	0	0	0	0	0
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0
Acetone	BRL	100	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0
Carbon disulfide	BRL	10	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
Chloroethane	BRL	10	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0
Chloromethane	BRL	10	0	0	0	0	0	0	0	0

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173013

Date:

5-Mar-13

Sample ID: MB-173013 Client ID: SampleType: MBLK TestCode: TCL VOLATILE ORGANICS SW8260B					Units: ug/Kg BatchID: 173013			Date: 02/28 lysis Date: 02/28		un No: 239311 eq No: 5009716
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
Freon-113	BRL	10	0	0	0	0	0	0	0	0
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Styrene	BRL	5.0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.96	0	50	0	93.9	63.8	133	0	0	0
Surr: Dibromofluoromethane	48.73	0	50	0	97.5	74.3	130	0	0	0
Surr: Toluene-d8	46.76	0	50	0	93.5	72.8	122	0	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 173013

Sample ID: LCS-173013	Client ID:					its: ug/Kg	Prep	Prep Date: 02/28/2013 Run No: 239311		
SampleType: LCS	TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Bat	tchID: 173013	Ana	lysis Date: 02/28	3/2013	Seq No: 5009713
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1-Dichloroethene	44.00	5.0	50	0	88	63.1	140	0	0	0
Benzene	46.79	5.0	50	0	93.6	70.2	130	0	0	0
Chlorobenzene	46.93	5.0	50	0	93.9	70	126	0	0	0
Γoluene	45.34	5.0	50	0	90.7	70.5	130	0	0	0
Γrichloroethene	45.41	5.0	50	0	90.8	70	135	0	0	0
Surr: 4-Bromofluorobenzene	48.95	0	50	0	97.9	63.8	133	0	0	0
Surr: Dibromofluoromethane	48.00	0	50	0	96	74.3	130	0	0	0
Surr: Toluene-d8	48.20	0	50	0	96.4	72.8	122	0	0	0
Sample ID: 1302K15-001AMS SampleType: MS	Client ID: TestCode: TCL	Client ID: TestCode: TCL VOLATILE ORGANICS SW8260B					• .	Date: 02/28 lysis Date: 03/01	B/2013 1/2013	Run No: 239380 Seq No: 5011070
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1-Dichloroethene	52.64	6.2	61.81	0	85.2	58.8	157	0	0	0
Benzene	57.84	6.2	61.81	0	93.6	66.3	139	0	0	0
Chlorobenzene	53.00	6.2	61.81	0	85.7	67.8	131	0	0	0
Γoluene	58.21	6.2	61.81	0	94.2	66	138	0	0	0
Trichloroethene	56.47	6.2	61.81	0	91.4	72.5	141	0	0	0
Surr: 4-Bromofluorobenzene	59.92	0	61.81	0	96.9	63.8	133	0	0	0
Surr: Dibromofluoromethane	60.39	0	61.81	0	97.7	74.3	130	0	0	0
Surr: Toluene-d8	62.07	0	61.81	0	100	72.8	122	0	0	0
Sample ID: 1302K15-001AMSD SampleType: MSD	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Un Bat	its: ug/Kg- ctchID: 173013		Date: 02/28 lysis Date: 03/01	B/2013 1/2013	Run No: 239380 Seq No: 5011071
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
,1-Dichloroethene	47.69	6.2	61.81	0	77.2	58.8	157	52.64	9.86	21.9
Benzene	53.18	6.2	61.81	0	86	66.3	139	57.84	8.4	22.3
Qualifiers: > Greater than Result val	ue	< Less than Result value E Estimated (value above quantitatio				•				
J Estimated value detect Rpt Lim Reporting Limit				due to matrix		R	RPD outside limits due to	matrix		

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173013

Date:

5-Mar-13

Sample ID: 1302K15-001AMSD SampleType: MSD	Client ID: TestCode: TO	L VOLATILE ORGA	ANICS SW8260	В	Units: ug/Kg-dry BatchID: 173013			Date: 02/28 lysis Date: 03/01		Run No: 239380 Seq No: 5011071	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual	
Chlorobenzene	50.99	6.2	61.81	0	82.5	67.8	131	53.00	3.85	17.3	
Toluene	52.71	6.2	61.81	0	85.3	66	138	58.21	9.92	18.1	
Trichloroethene	51.76	6.2	61.81	0	83.7	72.5	141	56.47	8.7	18.7	
Surr: 4-Bromofluorobenzene	61.67	0	61.81	0	99.8	63.8	133	59.92	0	0	
Surr: Dibromofluoromethane	60.46	0	61.81	0	97.8	74.3	130	60.39	0	0	
Surr: Toluene-d8	61.23	0	61.81	0	99.1	72.8	122	62.07	0	0	

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 173049

Sample ID: MB-173049 Client ID: SampleType: MBLK TestCode: TCL VOLATILE ORGANICS SW8260B					Uni Bat	its: ug/Kg chID: 173049		Date: 03/01/ lysis Date: 03/01/		un No: 239374 eq No: 5011557
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	BRL	250	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	BRL	250	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	BRL	250	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	250	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	250	0	0	0	0	0	0	0	0
1,2,4-Trichlorobenzene	BRL	250	0	0	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	BRL	250	0	0	0	0	0	0	0	0
1,2-Dibromoethane	BRL	250	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	BRL	250	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	250	0	0	0	0	0	0	0	0
1,2-Dichloropropane	BRL	250	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	BRL	250	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	BRL	250	0	0	0	0	0	0	0	0
2-Butanone	BRL	2500	0	0	0	0	0	0	0	0
2-Hexanone	BRL	500	0	0	0	0	0	0	0	0
4-Methyl-2-pentanone	BRL	500	0	0	0	0	0	0	0	0
Acetone	BRL	5000	0	0	0	0	0	0	0	0
Benzene	BRL	250	0	0	0	0	0	0	0	0
Bromodichloromethane	BRL	250	0	0	0	0	0	0	0	0
Bromoform	BRL	250	0	0	0	0	0	0	0	0
Bromomethane	BRL	250	0	0	0	0	0	0	0	0
Carbon disulfide	BRL	500	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	250	0	0	0	0	0	0	0	0
Chlorobenzene	BRL	250	0	0	0	0	0	0	0	0
Chloroethane	BRL	500	0	0	0	0	0	0	0	0
Chloroform	BRL	250	0	0	0	0	0	0	0	0
Chloromethane	BRL	500	0	0	0	0	0	0	0	0

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173049

Date:

5-Mar-13

Sample ID: MB-173049 Client ID: SampleType: MBLK TestCode: TCL VOLATILE ORGANICS SW8260B					Units: ug/Kg BatchID: 173049			Date: 03/01 lysis Date: 03/01		eq No: 239374
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
cis-1,2-Dichloroethene	BRL	250	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	BRL	250	0	0	0	0	0	0	0	0
Cyclohexane	BRL	250	0	0	0	0	0	0	0	0
Dibromochloromethane	BRL	250	0	0	0	0	0	0	0	0
Dichlorodifluoromethane	BRL	500	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	250	0	0	0	0	0	0	0	0
Freon-113	BRL	500	0	0	0	0	0	0	0	0
Isopropylbenzene	BRL	250	0	0	0	0	0	0	0	0
m,p-Xylene	BRL	250	0	0	0	0	0	0	0	0
Methyl acetate	BRL	250	0	0	0	0	0	0	0	0
Methyl tert-butyl ether	BRL	250	0	0	0	0	0	0	0	0
Methylcyclohexane	BRL	250	0	0	0	0	0	0	0	0
Methylene chloride	BRL	250	0	0	0	0	0	0	0	0
o-Xylene	BRL	250	0	0	0	0	0	0	0	0
Styrene	BRL	250	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	250	0	0	0	0	0	0	0	0
Toluene	BRL	250	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	250	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	BRL	250	0	0	0	0	0	0	0	0
Trichloroethene	BRL	250	0	0	0	0	0	0	0	0
Trichlorofluoromethane	BRL	250	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	500	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	2468	0	2500	0	98.7	63.8	133	0	0	0
Surr: Dibromofluoromethane	2514	0	2500	0	101	74.3	130	0	0	0
Surr: Toluene-d8	2579	0	2500	0	103	72.8	122	0	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

Date:

5-Mar-13

BatchID: 173049

Sample ID: LCS-173049 SampleType: LCS	Client ID: TestCode: TC	Uni Bat	its: ug/Kg chID: 173049		Date: 03/01 lysis Date: 03/01	1/2013	Run No: 239374 Seq No: 5011556			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1-Dichloroethene	3356	250	2500	0	134	63.1	140	0	0	0
Benzene	2490	250	2500	0	99.6	70.2	130	0	0	0
Chlorobenzene	2289	250	2500	0	91.6	70	126	0	0	0
Гoluene	2408	250	2500	0	96.3	70.5	130	0	0	0
Γrichloroethene	2450	250	2500	0	98	70	135	0	0	0
Surr: 4-Bromofluorobenzene	2485	0	2500	0	99.4	63.8	133	0	0	0
Surr: Dibromofluoromethane	2608	0	2500	0	104	74.3	130	0	0	0
Surr: Toluene-d8	2626	0	2500	0	105	72.8	122	0	0	0
Sample ID: 1302K13-017AMS SampleType: MS	Client ID: 13053-GP-4-3-4 TestCode: TCL VOLATILE ORGANICS SW8260B					its: ug/Kg-c chID: 173049		Date: 03/01 lysis Date: 03/02	1/2013 2/2013	Run No: 239374 Seq No: 5011561
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1-Dichloroethene	2210	180	1778	0	124	58.8	157	0	0	0
Benzene	1824	180	1778	0	103	66.3	139	0	0	0
Chlorobenzene	1680	180	1778	0	94.5	67.8	131	0	0	0
Γoluene	1887	180	1778	126.6	99	66	138	0	0	0
Γrichloroethene	1762	180	1778	66.12	95.4	72.5	141	0	0	0
Surr: 4-Bromofluorobenzene	1752	0	1778	0	98.6	63.8	133	0	0	0
Surr: Dibromofluoromethane	1808	0	1778	0	102	74.3	130	0	0	0
Surr: Toluene-d8	1837	0	1778	0	103	72.8	122	0	0	0
Sample ID: 1302K13-017AMSD SampleType: MSD	Client ID: 130 TestCode: TC	053-GP-4-3-4 L VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/Kg-c chID: 173049		Date: 03/01 lysis Date: 03/02	1/2013 2/2013	Run No: 239374 Seq No: 5011562
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
,1-Dichloroethene	2048	180	1778	0	115	58.8	157	2210	7.61	21.9
Benzene	1771	180	1778	0	99.6	66.3	139	1824	2.99	22.3
Qualifiers: > Greater than Result value BRL Below reporting limit J Estimated value detecte Rpt Lim Reporting Limit	tilue Less than Result value E Estimated (value above quantita N Analyte not NELAC certified S Spike Recovery outside limits di				- '		н і	Analyte detected in the ass Holding times for preparat RPD outside limits due to	tion or analysis o	

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1302K13

ANALYTICAL QC SUMMARY REPORT

BatchID: 173049

Date:

5-Mar-13

Sample ID: 1302K13-017AMSD SampleType: MSD		8053-GP-4-3-4 CL VOLATILE ORGA	В	Units: ug/Kg-dry BatchID: 173049			Date: 03/01 alysis Date: 03/02		Run No: 239374 Seq No: 5011562	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limi	t High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chlorobenzene	1653	180	1778	0	93	67.8	131	1680	1.62	17.3
Toluene	1845	180	1778	126.6	96.7	66	138	1887	2.25	18.1
Trichloroethene	1687	180	1778	66.12	91.2	72.5	141	1762	4.35	18.7
Surr: 4-Bromofluorobenzene	1747	0	1778	0	98.3	63.8	133	1752	0	0
Surr: Dibromofluoromethane	1791	0	1778	0	101	74.3	130	1808	0	0
Surr: Toluene-d8	1855	0	1778	0	104	72.8	122	1837	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

ANALYTICAL ENVIRONMENTAL SERVICES, INC.



March 12, 2013

Sarah Jones BROWN AND CALDWELL 990 Hammond Drive Atlanta GA 30328

TEL: (770) 394-2997 FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones: Order No: 1303324

Analytical Environmental Services, Inc. received 2 samples on 2/25/2013 3:14:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- -NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- -AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Project Manager

Taralesback

ANALYTICAL ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

1=	30332Y
Work Order:	1302/113-

Page

3785 Presidential Parkway, Atlanta GA 30340-3704 TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

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George Skala IV	SIGNATURE	Man	4			cis 12-DCE	Vinyl Chloride									orders, etc.	of Containers
# SAMPLE ID	SA	мрсеБ	- "	ig l	les)	cis	ş								1		o # oN
	DATE	TIME	Grab	Composite	Matrix (See codes)	Scolu	41/4	+2	PKI	SERV	ATION	See coo	les)	TT		REMARKS	
1 13057-84-31-4	3-22-13	0855	x	Ŭ	So	X	X					+	+-		╁		5
2 13057-184-7-8	1	0905	х		So	x	х						1				17
3 13053-By 10-11		0915	<u>x</u>		So	<u> x</u>	х										1
13053-134~ 15-69 5 13053-139-17-45		0920	x		So	X	X			<u> </u>							
6 13053 -6P-12-5-6		0940	X		So	X	х					\perp	1				
7 13053 - 69 - 1 14-15		0950	X		So	X	X		+	-	1	+	-		-		1
8 1363-6P-1 19-2d		04-100	X X	-	So .	X	X		_	_	-	╬	+-		-		
, 13053 - GP - 2 4-5		1035	X		So So	X	X X		_			+	 	-	+		-
10 13053 -GP-2 7-8		1030	X		So	x	X	+			1	+	+	 	-		-
11 13053 - GP-2 14-15		1040	х		So	x	x					\top	†			,	+
12 13053 - 60-2 18-19		1050	х		So	x	х										1
13 BOS3-GP-3 4-5		1110	х		So	x	х										1/
14 13053-GP 3 7.8 ELINQUISHED BY DATE/TIME	RECEIVED BY	1139	х		So	х	х			:_							V
7-15-18 luca	i:			DA 2-25	TETIME	PROJE	ECT N	AME:	PRO	JECT I	NFOR	OITAN	N			RECEIPT	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.			14.	<u> 55</u>				Mac	Gre	gor G	olf				Total # of Containers	
2/5/14	2 .	MZ	1231	15 BUY	,	PROJE SITE A			1601.6	2.01	71					Turnaround Time Request	
-	3:			/		l			Albany	y, GA	y Blvd				l	Standard 5 Business Days 2 Business Day Rush	
ECIAL INSTRUCTIONS/COMMENTS:		CUIDAGE								Tber	rymai	n@bi	wnca	ld.com		Next Business Day Rush	
1	OUT /	SHIPMENT /	METHOD VIA:			INVOI (IF DIF			M ABOV	/E)					Í	Same Day Rush (auth req.) Other	
	IN /	/	VIA:		>			•							s	TATE PROGRAM (if any):	
	•	T FodEx UPS THOUND OTH		COURTE		QUOTI	S #1·				. 80	ш.			F	i-mail? (Y) N; Fax? Y/N	
MPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSID				BUSINESS				1AŘKE	D ON CC	C AF	PO		CED 40	CT A NAME OF		DATA PACKAGE: I (II) III IV	
MPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION O	F REPORT UN	LESS OTHER A	RRANGI	EMENTS A	ARE MAI	E.	Ţ- ~·		- 0., 00	~ na	, 11106	· NOC	LLU AD	SIANDA.	KD TAT		

ANALYTICAL ENVIRONMENTAL SERVICES, INC 3785 Presidential Parkway, Atlanta GA 30340-3704 TEL: (770) 457-8177 / TOUL-FR FF (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

	1303374	
rk Order:	1302K13_	
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TEL.: (//0) 45/-81// / TOLL-FREE (800) 9		.X. (770) 437-8188											Dațe	_	Page01	
СОМР	ADDRESS:	000 Hammand Dwi	Sta 400					ANAI	LYSIS	REQU	JESTED)		*	Visit our website	
Brown and Caldwell	B .	990 Hammond Dri Atlanta, GA	ve Ste 400,	-		T							<u> </u>		www.aesatlanta.com to check on the status of	
PHONE:	FAX: SIGNATURE: /	MING	7		CE oride										your results, place bottle orders, etc.	ontainers
pergo Arala D	SAMI	PLED J		<u>_</u>	cis-1,2-DCE Vinvl Chloride											No# of Containers
# SAMPLE ID	DATE	TIME O	Composite Matrix	(See code	H+I			PRESI	ÊRVAT	ION (S	ee codes)				REMARKS	
/ 13053-GP-3-14-15	2/22/2013	1125 x	· G	w x	ς χ											3
2 13053-GP-3-17-18	2/22/2013	1130 x	G	w x	<u> </u>	_			_					<u> </u>		3
3 13053-GP-4-3-4	2/22/2013	1200 x	G,	w x	<u> </u>					_	1_					3
4 13053-GP-4-9-10	2/22/2013	1205 x	G	w x	c x				_	_			_ _	ـ		3
5 13053-GP-4-14-15	2/22/2013	1215 x	G'	w x	(X	_	Ш	\rightarrow		_				!		3
6 13053-GP-4-17-18	2/22/2013	1220 x	G,	w x	<u> </u>	1								-		3
7 13053-GP-5-4-5	2/22/2013	1330 x	G/	w x	(X	-			_					_	Hold	3
8 13053-GP-5-7-8	2/22/2013	1340 x	G	w x	(x								_	_	Hold	3_
9 13053-GP-5-12-13	2/22/2013	1350 x	G	w x	(x									<u> </u>	Hold	3
10 13053-GP-5-19-20	2/22/2013	1355 x	G	w x	(X	<u> </u>									Hold	3_
// 13053-GP-6-2-3	2/22/2013	1400 x	G	w x	(X	<u> </u>			_	_					Hold	3
/2 13053-GP-6-8-9	2/22/2013	1405 x	G\	w x	(X	1								_	Hold	3
/3 13053-GP-6-14-15	2/22/2013	1410 x	G\	w x	(x									<u></u>	Hold	3
14 13053-GP-6-19-20	2/22/2013	1415 x	G\	w x	х									L_	Hold	3
RELINQUIRAED DATE/TIME	RECEIVED BY		DATE/	TIME	ROJECT	N14 N41	· .	PROJ	ECT IN	FORM	IATION				RECEIPT	
Mant 2-25-13 1453			1415	3				Mac	Greg	or					Total # of Containers	
2-25-13	z: /	V 2/25/13	3314		ROJECT		:	Albany					:_		Turnaround Time Request Standard 5 Business Days	
3:	3:			S	END RE	PORT	TO:		Therr	vmar	n@brv	vncald	.com		2 Business Day Rush Next Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS:	OUT /	SHIPMENT METHO / VIA:	D	11	VOICE F DIFFE	TO:									Same Day Rush (auth req.) Other	
		/ VIA:	COURTER			*****									STATE PROGRAM (if any): E-mail /N; Fax? /N	
		HOUND OTHER			UOTE#					PO					DATA PACKAGE; I II III I	<u>^</u>
SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSII SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION O		•				S MAI	RKED	ON CO	C AES	WILL	PROCE	ED AS S	TANDA	KD T A	XI.	

ANALYTICAL ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

Page 4 of 13

3785 Presidential Parkway, Atlanta GA 30340-3704

OMP TEL.: (770) 457-8177 / TOLL-FREE (800)	ADDRESS:								× ·							Date:	rage <u>/</u>	of
Brown and Caldwell		990 Hamme Atlanta, GA		ive Ste	400,		1		т -	ANA	LYS	IS REC	UEST	ED			Visit our webs	site
IONE:							1					ŀľ				1 1	www.aesatlanta	
	FAX:	. <	7			7											to check on the st	
MPLED BY: MORE Arag Fit	SIGNATURE:	Mala	F			cis-1.2-DCE	Vinyl Chloride			s							your results, place orders, etc.	
SAMPLE ID	SAM	MPLED		ā	8	- I-sis	Viny	Š	Svoc	Metals								
Same La IB			۾ ا	Composite	Matrix (See codes)	ļ	т—	_		PRES	ERVA	TION (See cod	es)				
12051 CD 7.4	DATE	TIME	Grab	Ö	(Se Ma	H+1											REMARKS	
13053-GP-7-3-4	2/22/2013	1430	х	 	GW	x	х	_	Щ								Hold	
13053-GP-7-9-10	2/22/2013	1435	x	 	GW	x	x							$oldsymbol{ol}}}}}}}}}}}}}}}}}}$			Hold	
13053-GP-7-11-12	2/22/2013	1445	x	ļ	GW	х	x										Hold	
13053-GP-7-17-18	2/22/2013	1450	x	<u> </u>	GW	х	х										Hold	
13053-GP-8-3-4	2/22/2013	1505	x	ļ	GW	х	x										Hold	
13053-GP-8-9-10	2/22/2013	1510	x		GW	х	x										Hold	$\neg \dagger$
13053-GP-8-14-15	2/22/2013	1520	х .		GW	х	<u>x</u>										Hold	$\neg \neg$
13053-GP-8-19-20	2/22/2013	1525	x		GW	х	x								1		Hold	
Trip Blanks	2/22/2013	-	x	-	W	х	x				T						Tiola .	
13053-EB	2/22/2013	1600	x		w	x	x				T							-+
13053-T-Clip Soil	2/22/2013	1615		x	So	-	-	XT	ΧĪ	χ' [1				-+
13053-T-Clip Water	2/23/2013	1630		x .	GW	1	٤,	, ,	, x		丁						hold	\neg
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QUINATED BAY						\Box				1	\top	_	1					
DATE/TIME	RECEIVED BY	-		7 0	DATE/TIME				ı	ROJE	CT IN	FORM	ATION	i			RECEIPT	
1-15-13 143			- 2	14	750	PROJE	CT NA	AME:	N	1acG	rege	or					Total # of Containers	•
15:14	2:	1/	1	1	- ///	PROJE	CT#:										Turnaround Time Re	
	3:	MI	ek.	163	019	SITE A	DDRE	SS:	A	lbany							Standard 5 Business	
		V				CENT.				Ti			<u> </u>				2 Business Day Rush	
L INSTRUCTIONS/COMMENTS:		SHIPMENT M	ETHOD			SEND I):	<u>.][</u>	bern	/man	(CODTV	<u>vnca</u>	id.co	<u>m</u>	Next Business Day R	
	OUT /		VIA:			(IF DIF			OM A	BOVE))						Same Day Rush (aut) Other	i req.)
	IN /		VIA:	_	7												STATE PROGRAM (if any):	
	CLIENT GREYH		MAIL	COURI	ED/												E-mail? (Y/N; Fax? Y)	/N
ES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDER ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF					·	QUOTE	#:					PO#:					, , , , , , , , , , , , , , , , , , ,	III IV

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE. MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

Client: BROWN AND CALDWELL

Project: MacGregor Golf Case Narrative

Date:

12-Mar-13

Lab ID: 1303324

Per Sarah Jones, pull "13053-GP-2-3" and "13053-GP-6-8-9" off hold from 1302K13 and analyze for cis-1,2-DCE and vinyl chloride at std turn.

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-6-2-3

Project Name: MacGregor Golf Collection Date: 2/22/2013 2:00:00 PM

Lab ID: 1303324-001 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	173171	1	03/07/2013 00:44	MD
Vinyl chloride	BRL	9.5		ug/Kg-dry	173171	1	03/07/2013 00:44	MD
Surr: 4-Bromofluorobenzene	93.9	63.8-133		%REC	173171	1	03/07/2013 00:44	MD
Surr: Dibromofluoromethane	91.6	74.3-130		%REC	173171	1	03/07/2013 00:44	MD
Surr: Toluene-d8	98.4	72.8-122		%REC	173171	1	03/07/2013 00:44	MD
PERCENT MOISTURE D2216								
Percent Moisture	12.8	0		wt%	R239835	1	03/11/2013 11:30	AS

Date:

12-Mar-13

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13053-GP-6-8-9

Project Name: MacGregor Golf Collection Date: 2/22/2013 2:05:00 PM

Lab ID: 1303324-002 **Matrix:** Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW	5035)			
cis-1,2-Dichloroethene	76	4.0		ug/Kg-dry	173171	1	03/07/2013 00:15	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	173171	1	03/07/2013 00:15	MD
Surr: 4-Bromofluorobenzene	96.8	63.8-133		%REC	173171	1	03/07/2013 00:15	MD
Surr: Dibromofluoromethane	97.5	74.3-130		%REC	173171	1	03/07/2013 00:15	MD
Surr: Toluene-d8	101	72.8-122		%REC	173171	1	03/07/2013 00:15	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.0	0		wt%	R239835	1	03/11/2013 11:30	AS

Date:

12-Mar-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Sample/Cooler Receipt Checklist

Client Brown + Colduc				13033	24
		Work Or	der Number	730EH413	<u>ش</u>
Checklist completed by Signature	2/25/13 ate				
Carrier name: FedEx UPS Courier Client U	US Mail Otl	her			
Shipping container/cooler in good condition?	Yes _	No _	Not Present		
Custody seals intact on shipping container/cooler?	Yes	No _	_	-	
Custody seals intact on sample bottles?	Yes _	No	Not Present	•	
Container/Temp Blank temperature in compliance? (4°C±2)		No		•	
Cooler #1 3.1 Cooler #2 3.2 Cooler #3	Cooler #4	C	ooler#5	Cooler #6	
Chain of custody present?	Yes _	No _			
Chain of custody signed when relinquished and received?	Yes _	No _			
Chain of custody agrees with sample labels?	Yes	No			
Samples in proper container/bottle?	Yes _	No			
Sample containers intact?	Yes _	No			
Sufficient sample volume for indicated test?	Yes _	No			
All samples received within holding time?	Yes	No			
Was TAT marked on the COC?	Yes	No			
Proceed with Standard TAT as per project history?	Yes	No _	Not Applicable		
Water - VOA vials have zero headspace? No VOA vials su	ıbmitted	Yes	No _		
Water - pH acceptable upon receipt?	Yes _	No _	Not Applicable		
/ Adjusted?	Che	cked by	MT		
Sample Condition: GoodOther(Explain)					
For diffusive samples or AIHA lead) Is a known blank includ	led? Yes		No/		

See Case Narrative for resolution of the Non-Conformance.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

^{*} Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL

Project: MacGregor Golf

Lab Order: 1303324

Dates Report

Date: 11-Mar-13

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1303324-001A	13053-GP-6-2-3	2/22/2013 2:00:00PM	Soil	TCL VOLATILE ORGANICS		03/06/2013	03/07/2013
1303324-001B	13053-GP-6-2-3	2/22/2013 2:00:00PM	Soil	PERCENT MOISTURE			03/11/2013
1303324-002A	13053-GP-6-8-9	2/22/2013 2:05:00PM	Soil	TCL VOLATILE ORGANICS		03/06/2013	03/07/2013
1303324-002B	13053-GP-6-8-9	2/22/2013 2:05:00PM	Soil	PERCENT MOISTURE			03/11/2013

Vironmental Services, Inc Date: 12-Mar-13

Client: BROWN AND CALDWELL

1303324

ANALYTICAL QC SUMMARY REPORT

Project Name: MacGregor Golf

Workorder:

BatchID: 173171

Sample ID: MB-173171 SampleType: MBLK	Client ID: TestCode: TO	CL VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/Kg chID: 173171		Date: 03/06 lysis Date: 03/06		Run No: 239574 Seq No: 5014840
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
2-Butanone	BRL	50	0	0	0	0	0	0	0	0
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0
Acetone	BRL	100	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0
Carbon disulfide	BRL	10	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0
Chloroethane	BRL	10	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0
Chloromethane	BRL	10	0	0	0	0	0	0	0	0

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Project Name: MacGregor Golf

Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT

BatchID: 173171

Date:

12-Mar-13

Sample ID: MB-173171	Client ID:	L VOLATILE ORGA	NICS SW8260	R	Uni	0 0		Date: 03/06		un No: 239574
SampleType: MBLK	resicode: 10	L VOLATILE ORGA	11103 3110200	ь	Баі	chID: 173171	Ana	lysis Date: 03/06	/2013 8	eq No: 5014840
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
Freon-113	BRL	10	0	0	0	0	0	0	0	0
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0
Styrene	BRL	5.0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	10	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.91	0	50	0	93.8	63.8	133	0	0	0
Surr: Dibromofluoromethane	47.97	0	50	0	95.9	74.3	130	0	0	0
Surr: Toluene-d8	49.71	0	50	0	99.4	72.8	122	0	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

12-Mar-13 Date:

Client: BROWN AND CALDWELL **Project Name:**

MacGregor Golf

Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT

BatchID: 173171

Sample ID: LCS-173171 SampleType: LCS	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/Kg chID: 173171		Date: 03/06 lysis Date: 03/06	5/2013 5/2013	Run No: 239574 Seq No: 5014838
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1-Dichloroethene	59.98	5.0	50	0	120	63.1	140	0	0	0
Benzene	54.16	5.0	50	0	108	70.2	130	0	0	0
Chlorobenzene	58.60	5.0	50	0	117	70	126	0	0	0
Γoluene	54.40	5.0	50	0	109	70.5	130	0	0	0
Trichloroethene	58.20	5.0	50	0	116	70	135	0	0	0
Surr: 4-Bromofluorobenzene	49.32	0	50	0	98.6	63.8	133	0	0	0
Surr: Dibromofluoromethane	49.84	0	50	0	99.7	74.3	130	0	0	0
Surr: Toluene-d8	49.43	0	50	0	98.9	72.8	122	0	0	0
Sample ID: 1303188-010AMS SampleType: MS	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/Kg-c chID: 173171		Date: 03/06 lysis Date: 03/06		Run No: 239574 Seq No: 5016371
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,1-Dichloroethene	57.65	6.3	62.58	0	92.1	58.8	157	0	0	0
Benzene	57.88	6.3	62.58	0	92.5	66.3	139	0	0	0
Chlorobenzene	63.78	6.3	62.58	0	102	67.8	131	0	0	0
Γoluene	58.67	6.3	62.58	0	93.8	66	138	0	0	0
Γrichloroethene	58.81	6.3	62.58	0	94	72.5	141	0	0	0
Surr: 4-Bromofluorobenzene	59.72	0	62.58	0	95.4	63.8	133	0	0	0
Surr: Dibromofluoromethane	56.76	0	62.58	0	90.7	74.3	130	0	0	0
Surr: Toluene-d8	61.93	0	62.58	0	99	72.8	122	0	0	0
Sample ID: 1303188-010AMSD SampleType: MSD	Client ID: TestCode: TCL	VOLATILE ORGA	ANICS SW8260	В	Uni Bat	its: ug/Kg-c chID: 173171		Date: 03/06 lysis Date: 03/06	5/2013 5/2013	Run No: 239574 Seq No: 5016372
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
,1-Dichloroethene	58.31	6.3	62.58	0	93.2	58.8	157	57.65	1.14	21.9
Benzene	57.68	6.3	62.58	0	92.2	66.3	139	57.88	0.347	22.3
Qualifiers: > Greater than Result value BRL Below reporting limit J Estimated value detector Rpt Lim Reporting Limit	ne ed below Reporting Limit		E Estim N Analy	than Result value nated (value above quantity te not NELAC certified Recovery outside limits of	- '		Н	Analyte detected in the ass Holding times for preparat RPD outside limits due to	ion or analysis o	

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1303324

ANALYTICAL QC SUMMARY REPORT

BatchID: 173171

Date:

12-Mar-13

Sample ID: 1303188-010AMSD	Client ID:				Uni	ts: ug/Kg	-dry Prep	Date: 03/06	/2013	Run No: 239574
SampleType: MSD	TestCode: TO	L VOLATILE ORGA	ANICS SW8260	В	Bat	chID: 17317	I Ana	alysis Date: 03/06	/2013	Seq No: 5016372
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limi	t High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chlorobenzene	63.73	6.3	62.58	0	102	67.8	131	63.78	0.078	17.3
Toluene	58.22	6.3	62.58	0	93	66	138	58.67	0.771	18.1
Trichloroethene	58.80	6.3	62.58	0	94	72.5	141	58.81	0.021	18.7
Surr: 4-Bromofluorobenzene	59.28	0	62.58	0	94.7	63.8	133	59.72	0	0
Surr: Dibromofluoromethane	56.46	0	62.58	0	90.2	74.3	130	56.76	0	0
Surr: Toluene-d8	62.13	0	62.58	0	99.3	72.8	122	61.93	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

ANALYTICAL ENVIRONMENTAL SERVICES, INC.



May 13, 2013

Sarah Jones BROWN AND CALDWELL 990 Hammond Drive Atlanta GA 30328

TEL: (770) 394-2997 FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones: Order No: 1305702

Analytical Environmental Services, Inc. received 3 samples on 5/9/2013 10:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- -NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- -AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Project Manager

Taralesback

Work Order:

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Date: 5-8-13 Page 1 of 1

Brown & Caldwell 990 Hammond Dr ste 400								§ § ANALYSIS REQUESTED							Visit	Visit our website				
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Page 2 of 10

Client:BROWN AND CALDWELLClient Sample ID:13128-SPARTAN-MW-2Project Name:MacGregor GolfCollection Date:5/8/2013 2:35:00 PM

Date:

13-May-13

Lab ID: 1305702-001 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst			
METALS, DISSOLVED SW6010C		(SW3005A)									
Chromium	BRL	0.0100		mg/L	175892	1	05/09/2013 14:00	MR			
Hexavalent Chromium in Water SW7196A	A										
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG			
Chromium, Hexavalent	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG			
METALS, TOTAL SW6010C				(SW	/3010A)						
Chromium	BRL	0.0100		mg/L	175845	1	05/09/2013 15:52	MR			

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13128-DUP

Project Name: MacGregor Golf Collection Date: 5/8/2013 6:00:00 PM

Lab ID:1305702-002Matrix:Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst			
METALS, DISSOLVED SW6010C	(SW3005A)										
Chromium	BRL	0.0100		mg/L	175892	1	05/10/2013 15:07	MR			
Hexavalent Chromium in Water SW7196	A										
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG			
Chromium, Hexavalent	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG			
METALS, TOTAL SW6010C				(SW	/3010A)						
Chromium	BRL	0.0100		mg/L	175845	1	05/09/2013 21:41	MR			

Date:

13-May-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

< Less than Result value

Client: BROWN AND CALDWELL Client Sample ID: 13128-EB

Project Name: MacGregor Golf Collection Date: 5/8/2013 3:00:00 PM

Lab ID:1305702-003Matrix:Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C				(SW	/3005A)			
Chromium	BRL	0.0100		mg/L	175892	1	05/10/2013 15:10	MR
Hexavalent Chromium in Water SW7196	4							
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
Chromium, Hexavalent	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
METALS, TOTAL SW6010C				(SW	/3010A)			
Chromium	BRL	0.0100		mg/L	175845	1	05/09/2013 21:45	MR

Date:

13-May-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative NC Not confirmed

< Less than Result value

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC

Date: 5-8-13 Page 1 of 1

COMPANY: Brown & Caldwell	ADDRESS:	tammond	Dr	ste	400		§	ξ		ANA	LYSI	IS RE	QUES	TED			Visit ou	r website	
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SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PI												DATA PACKAGE:	ாமிளோ	<u>/ </u>					
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Client: BROWN AND CALDWELL

Project: MacGregor Golf

Lab Order: 1305702

Dates Report

Date: 13-May-13

ı	Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
	1305702-001A	13128-SPARTAN-MW-2	5/8/2013 2:35:00PM	Groundwater	TOTAL METALS BY ICP		05/09/2013	05/09/2013
	1305702-001B	13128-SPARTAN-MW-2	5/8/2013 2:35:00PM	Groundwater	DISSOLVED METALS BY ICP		05/09/2013	05/09/2013
	1305702-001C	13128-SPARTAN-MW-2	5/8/2013 2:35:00PM	Groundwater	Hexavalent Chromium			05/09/2013
	1305702-002A	13128-DUP	5/8/2013 6:00:00PM	Groundwater	TOTAL METALS BY ICP		05/09/2013	05/09/2013
	1305702-002B	13128-DUP	5/8/2013 6:00:00PM	Groundwater	DISSOLVED METALS BY ICP		05/09/2013	05/10/2013
	1305702-002C	13128-DUP	5/8/2013 6:00:00PM	Groundwater	Hexavalent Chromium			05/09/2013
	1305702-003A	13128-EB	5/8/2013 3:00:00PM	Groundwater	TOTAL METALS BY ICP		05/09/2013	05/09/2013
	1305702-003B	13128-EB	5/8/2013 3:00:00PM	Groundwater	DISSOLVED METALS BY ICP		05/09/2013	05/10/2013
	1305702-003C	13128-EB	5/8/2013 3:00:00PM	Groundwater	Hexavalent Chromium			05/09/2013

Date: 13-May-13

Client: BROWN AND CALDWELL

1305702

ANALYTICAL QC SUMMARY REPORT

Project Name: MacGregor Golf

Workorder:

BatchID: 175845

Sample ID: MB-175845	Client ID:				Un	8			0/2013	Run No: 243716
SampleType: MBLK	TestCode:	METALS, TOTAL	SW6010C		Bat	tchID: 175845	Ana	alysis Date: 05/09	0/2013	Seq No: 5102182
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-175845	Client ID:	METALO TOTAL	CW/C010C		Un	-			0/2013	Run No: 243716
SampleType: LCS	TestCode:	METALS, TOTAL	SW6010C		Bat	tchID: 175845	Ana	alysis Date: 05/09	0/2013	Seq No: 5102181
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	1.064	0.0100	1.000	0	106	80	120	0	0	0
Sample ID: 1305383-003AMS	Client ID:				Un	its: mg/L	Prej	Date: 05/09	0/2013	Run No: 243716
SampleType: MS	TestCode:	METALS, TOTAL	SW6010C		Bat	tchID: 175845	Ana	alysis Date: 05/09	0/2013	Seq No: 5102187
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	1.123	0.0100	1.000	0	112	75	125	0	0	0
Sample ID: 1305383-003AMSD	Client ID:				Un	its: mg/L	Prej	Date: 05/09	0/2013	Run No: 243716
SampleType: MSD	TestCode:	METALS, TOTAL	SW6010C		Bat	tchID: 175845	Ana	alysis Date: 05/09	0/2013	Seq No: 5102188
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	1.091	0.0100	1.000	0	109	75	125	1.123	2.90	20
Sample ID: 1305702-001ADUP			MW-2		Un	its: mg/L	Prej	Date: 05/09	0/2013	Run No: 243716
SampleType: DUP	TestCode:	METALS, TOTAL	SW6010C		Bat	tchID: 175845	Ana	alysis Date: 05/09	0/2013	Seq No: 5102299
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0.005397	0	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

B Analyte detected in the associated method blank H Holding times for preparation or analysis exceeded

Date: 13-May-13

Client: BROWN AND CALDWELL **Project Name:**

MacGregor Golf

Workorder: 1305702

ANALYTICAL QC SUMMARY REPORT

BatchID: 175892

Sample ID: MB-175892	Client ID:				Uni	ts: mg/L	Prep	Date: 05/09	/2013	Run No: 243713
SampleType: MBLK	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 175892	Ana	lysis Date: 05/09	/2013	Seq No: 5102116
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-175892 SampleType: LCS	Client ID: TestCode:	METALS, DISSOLVED	SW6010C		Uni Bat	its: mg/L chID: 175892	1	Date: 05/09 lysis Date: 05/09		Run No: 243713 Seq No: 5102114
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9908	0.0100	1.000	0	99.1	80	120	0	0	0
Sample ID: 1305702-001BMS SampleType: MS		13128-SPARTAN-M METALS, DISSOLVED	W-2 SW6010C		Uni Bat	its: mg/L chID: 175892	•	Date: 05/09 lysis Date: 05/09		Run No: 243713 Seq No: 5102118
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9141	0.0100	1.000	0.003860	91.0	75	125	0	0	0
Sample ID: 1305702-001BMSD SampleType: MSD		13128-SPARTAN-M METALS, DISSOLVED	W-2 SW6010C		Uni Bat	its: mg/L chID: 175892	•	Date: 05/09 lysis Date: 05/09		Run No: 243713 Seq No: 5102119
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9653	0.0100	1.000	0.003860	96.1	75	125	0.9141	5.45	20
Sample ID: 1305702-001BDUP SampleType: DUP		13128-SPARTAN-M METALS, DISSOLVED			Uni Bat	ts: mg/L chID: 175892		Date: 05/09 lysis Date: 05/09		Run No: 243713 Seq No: 5102124
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0.003860	0	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Rpt Lim Reporting Limit

Estimated value detected below Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Client: BROWN AND CALDWELL

MacGregor Golf **Project Name:**

Workorder: 1305702

ANALYTICAL QC SUMMARY REPORT

BatchID: R243706

Date:

13-May-13

Sample ID: MB-R243706	Client ID:				Un	its: mg/L	Prep	Date:		Run No: 243706
SampleType: MBLK	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R24370	6 Ana	lysis Date: 05/09	/2013	Seq No: 5101876
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-R243706	Client ID:				Un	its: mg/L	Prep	Date:		Run No: 243706
SampleType: LCS	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R24370	6 Ana	lysis Date: 05/09	/2013	Seq No: 5101877
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5370	0.0100	0.5000	0	107	90	110	0	0	0
Sample ID: 1305702-001CMS	Client ID:	13128-SPARTAN-M	IW-2		Un	its: mg/L	Prep	Date:		Run No: 243706
SampleType: MS	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R24370	6 Ana	lysis Date: 05/09	/2013	Seq No: 5101886
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5324	0.0100	0.5000	0.009400	105	85	115	0	0	0
Sample ID: 1305702-001CMSD	Client ID:	13128-SPARTAN-M	IW-2		Un	its: mg/L	Prep	Date:		Run No: 243706
SampleType: MSD	TestCode:	Hexavalent Chromium in	Water SW71	96A	Bat	tchID: R24370	6 Ana	lysis Date: 05/09	/2013	Seq No: 5101888
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5324	0.0100	0.5000	0.009400	105	85	115	0.5324	0	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Rpt Lim Reporting Limit

Estimated value detected below Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

ANALYTICAL ENVIRONMENTAL SERVICES, INC.



May 13, 2013

Sarah Jones BROWN AND CALDWELL 990 Hammond Drive Atlanta GA 30328

TEL: (770) 394-2997 FAX: (770) 396-9495

RE: MacGregor Golf

Dear Sarah Jones: Order No: 1305845

Analytical Environmental Services, Inc. received 1 samples on 5/10/2013 10:25:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- -NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
- -AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck

Project Manager

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ANALYTICAL ENVIRONMENTAL SERVICES, INC

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Vork Order:	13000	•

3785 Presidential Parkway, Atlanta GA 3 AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / F							<u> </u>		·						Date:	<u>5</u>	3-9-13 Page of		
Brown & Caldwell	ADDRESS: 990 AH 10	Hammo nta Gu	ud 30	D1 328	57e40 8	ייש	Ę.	₹ 5	,	ANAL	YSIS I	REQU	JESTE	D I	1	<u> </u>		Visit our website www.aesatlanta.com		
MPLEDBY: Brian Steele	ISIGNIATURE					fotal Chromium 6010 B	P> ∨	xava)en F										to check on the status of your results, place bottle orders, etc.		
SAMPLE ID	SA	APLED		Composite	Matrix (See codes)			[본기		resei	VATI	ON (S	ee code	es)		Ш	\exists			
12126 4 4	DATE	TIME	Grab	Con		411-7			4		\perp	_						REMARKS		
1 13129-MW-26	5-9-13	1240	X		GW	Υ.	X	X	+	+	-	4	\bot	-	<u> </u>			short hold time		
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															H		\exists			
	RECEIVED BY DATE/TIME				PROJECT INFORMATION PROJECT NAME:										RECEIPT					
3.12 Steel 5.1.13/1300	Dr.f. Slober 1000					Macarea												Total # of Containers		
	PROJECT #: 14332 7 SITE ADDRESS: A bany GA									Turnaround Time Request Standard 5 Business Days										
						SEND	REPO	RT TO:	ح.	Sene	5 6	01	w,	cal	d. n	on	\dashv	2 Business Day Rush Next Business Day Rush		
CIAL INSTRUCTIONS/COMMENTS: Short hold fime.	SHIPMENT METHOD OUT / / VIA: IN / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER					SEND REPORT TO: STORES & O/WN CALL, COM INVOICE TO: (IF DIFFERENT FROM ABOVE)												Same Day Rush (auth req.) Other STATE PROGRAM (if any): E-mail? (Y) N; Fax? Y(N)		
						QUOTE #: PO#:														
MPLES RECEIVED AFTER 3PM OR SATURDAY ARE CON:	<u> </u>			BUSINE	ESS DAY: YE		_	MARKE	ים ת	N COC	AFC			EFD 4	C OTA	NDAD		DATA PAČKAGE: I (II) III IV		

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Client: BROWN AND CALDWELL

Project: MacGregor Golf Case Narrative

Date:

13-May-13

Lab ID: 1305845

Sample analyzed for both hex chromium and tri chromium per project requirements.

Client: BROWN AND CALDWELL Client Sample ID: 13129-MW-26

Project Name: MacGregor Golf Collection Date: 5/9/2013 12:40:00 PM

Lab ID: 1305845-001 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C				(SW	/3005A)			
Chromium	0.0288	0.0100		mg/L	175892	1	05/10/2013 13:01	MR
Hexavalent Chromium in Water SW7196.	A							
Chromium as Cr+3	BRL	0.0100		mg/L	R243706	1	05/09/2013 12:10	CG
Chromium, Hexavalent	0.0307	0.0100		mg/L	R243706	1	05/10/2013 11:00	CG
METALS, TOTAL SW6010C				(SW	/3010A)			
Chromium	0.0337	0.0100		mg/L	175942	1	05/10/2013 14:28	MR

Date:

13-May-13

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative
NC Not confirmed

Less than Result value

J Estimated value detected below Reporting Limit

Sample/Cooler Receipt Checklist

Client Bronw of which		Work Orde	r Number	1305845
Checklist completed by Signature Da	5/10/13 ate			
Carrier name: FedEx UPS Courier Client U	US Mail Othe	er		
Shipping container/cooler in good condition?	Yes _	No	Not Present _	-
Custody seals intact on shipping container/cooler?	Yes _	No	Not Present _	_
Custody seals intact on sample bottles?	Yes _	No	Not Present _	-
Container/Temp Blank temperature in compliance? (4°C±2))* Yes	No		
Cooler #1 3.1 Cooler #2 Cooler #3	Cooler #4	Co-	oler#5	Cooler #6
Chain of custody present?	Yes _	No		
Chain of custody signed when relinquished and received?	Yes _	No		
Chain of custody agrees with sample labels?	Yes _	No		
Samples in proper container/bottle?	Yes _	No		
Sample containers intact?	Yes _	No		
Sufficient sample volume for indicated test?	Yes	. No		
All samples received within holding time?	Yes _	No		
Was TAT marked on the COC?	Yes _	No		
Proceed with Standard TAT as per project history?	Yes	No	Not Applicable	e
Water - VOA vials have zero headspace? No VOA vials	submitted	Yes _	No _	
Water - pH acceptable upon receipt?	Yes	No	Not Applicab	e
Adjusted?	Che	ecked by	mj	
Sample Condition: Good Other(Explain)				_
(For diffusive samples or AIHA lead) Is a known blank inclu	uded? Yes	s 1	No _	

See Case Narrative for resolution of the Non-Conformance.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklists

^{*} Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL

Project: MacGregor Golf

Lab Order: 1305845

Dates Report

Date: 13-May-13

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1305845-001A	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	TOTAL METALS BY ICP		05/10/2013	05/10/2013
1305845-001B	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	DISSOLVED METALS BY ICP		05/10/2013	05/10/2013
1305845-001C	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	Hexavalent Chromium			05/09/2013
1305845-001C	13129-MW-26	5/9/2013 12:40:00PM	Groundwater	Hexavalent Chromium			05/10/2013

Date: 13-May-13

BROWN AND CALDWELL **Client:**

1305845

ANALYTICAL QC SUMMARY REPORT

Project Name: MacGregor Golf

Workorder:

BatchID: 175892

Sample ID: MB-175892	Client ID:		GTT 10 40 G		Uni		•	Date: 05/09		Run No: 243713
SampleType: MBLK	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 175892	Ana	alysis Date: 05/09	/2013	Seq No: 5102116
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-175892	Client ID:				Uni	ts: mg/L	Prej	Date: 05/09	/2013	Run No: 243713
SampleType: LCS	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 175892	Ana	llysis Date: 05/09	/2013	Seq No: 5102114
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9908	0.0100	1.000	0	99.1	80	120	0	0	0
Sample ID: 1305702-001BMS	Client ID:				Uni	ts: mg/L	Prej	Date: 05/09	/2013	Run No: 243713
SampleType: MS	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 175892	Ana	llysis Date: 05/09	/2013	Seq No: 5102118
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9141	0.0100	1.000	0.003860	91.0	75	125	0	0	0
Sample ID: 1305702-001BMSD	Client ID:				Uni	ts: mg/L	Prej	Date: 05/09	/2013	Run No: 243713
SampleType: MSD	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 175892	Ana	llysis Date: 05/09	/2013	Seq No: 5102119
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	0.9653	0.0100	1.000	0.003860	96.1	75	125	0.9141	5.45	20
Sample ID: 1305702-001BDUP	Client ID:				Uni	ts: mg/L	Pre	Date: 05/09	/2013	Run No: 243713
SampleType: DUP	TestCode:	METALS, DISSOLVED	SW6010C		Bat	chID: 175892	Ana	alysis Date: 05/09	/2013	Seq No: 5102124
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0.003860	0	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: BROWN AND CALDWELL

Project Name: MacGregor Golf

Workorder: 1305845

ANALYTICAL QC SUMMARY REPORT

Date:

13-May-13

BatchID: 175942

Sample ID: MB-175942 SampleType: MBLK	Client ID: TestCode:	METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 175942		p Date: 05/10 alysis Date: 05/10	0/2013 0/2013	Run No: 243798 Seq No: 5103962
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Limit Qual
Chromium	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-175942 SampleType: LCS	Client ID: TestCode:	METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 175942		p Date: 05/10 alysis Date: 05/10	0/2013 0/2013	Run No: 243798 Seq No: 5103961
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Limit Qual
Chromium	1.059	0.0100	1.000	0	106	80	120	0	0	0
Sample ID: 1305845-001AMS SampleType: MS		13129-MW-26 METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 175942		p Date: 05/10 alysis Date: 05/10	0/2013 0/2013	Run No: 243798 Seq No: 5103964
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Limit Qual
Chromium	1.033	0.0100	1.000	0.03365	99.9	75	125	0	0	0
Sample ID: 1305845-001AMSD SampleType: MSD	Client ID: TestCode:	13129-MW-26 METALS, TOTAL	SW6010C		Uni Bat	its: mg/L chID: 175942		p Date: 05/10 alysis Date: 05/10	0/2013 0/2013	Run No: 243798 Seq No: 5103965
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPE	RPD Limit Qual
Chromium	1.013	0.0100	1.000	0.03365	98.0	75	125	1.033	1.92	20

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: BROWN AND CALDWELL

MacGregor Golf **Project Name:**

Workorder: 1305845

ANALYTICAL QC SUMMARY REPORT

Date:

13-May-13

BatchID: R243706

Sample ID: MB-R243706 SampleType: MBLK	Client ID: TestCode:	Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R24370		Date: 05/09/	/2013	Run No: 243706 Seq No: 5101876
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	BRL	0.0100	0	0	0	0	0	0	0	0
Sample ID: LCS-R243706 SampleType: LCS	Client ID: TestCode:	Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R24370		Date: alysis Date: 05/09	/2013	Run No: 243706 Seq No: 5101877
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5370	0.0100	0.5000	0	107	90	110	0	0	0
Sample ID: 1305702-001CMS SampleType: MS	Client ID: TestCode:	Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R24370		Date: o Date: 05/09/	/2013	Run No: 243706 Seq No: 5101886
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5324	0.0100	0.5000	0.009400	105	85	115	0	0	0
Sample ID: 1305702-001CMSD SampleType: MSD	Client ID: TestCode:	Hexavalent Chromium in	Water SW71	96A	Un Bat	its: mg/L tchID: R24370		Date: o Date: 05/09/	/2013	Run No: 243706 Seq No: 5101888
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Chromium, Hexavalent	0.5324	0.0100	0.5000	0.009400	105	85	115	0.5324	0	20

Qualifiers: Greater than Result value

> BRL Below reporting limit

Rpt Lim Reporting Limit

Estimated value detected below Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Appendix C: Laboratory Stipulation Letter



AES

Analytical Environmental Services, Inc., 3785 Presidential Parkway Atlanta, GA 30340

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES)
	3785 Presidential Parkway, NE
	Atlanta, GA 30340
	(770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories;
	Accrediting NELAP Authority
Accreditation ID:	E87582
Scope:	Clean Water Act – Extractable Organics, General Chemistry,
	Metals, Microbiology, Pesticides-Herbicides, PCBs, Volatile
	Organics
	RCRA/CERCLA – Extractable Organics, General Chemistry,
	Metals, Pesticides-Herbicides, PCBs, Volatile Organics
Effective:	July 1, 2012
Expires:	June 30, 2013

I further certify that the sample(s) for which this data is being submitted has been handled pursuant to the appropriate chain of custody. Any question regarding this stipulation of approval may be directed to AES at 770 457-8177. Thank you for your business and please do not hesitate contacting us if we can be of further assistance.

James Forres

Director of Project Management

September, 19 2012

Appendix D: Boring Logs



	Brown AND Caldwell Project Name: Former Macgregor Golf Company Project Number: 143327 Project Location: 1601 South Slappey Blvd, Albany GA			Permit Numb	Boring No. B-4 Page 1 of 1			
Geologist/Offic	Geologist/Office Checked By: Borehole Diameter: Screen Diameter and Type:			Slot Size:	Total Boring Depth (ft)			
Brian Steele/Atla	ınta	Tamara Berryman		4"	NA		NA	10.0 ft.
Start/Finish Da	ıte	Drilling Contractor:		Sampling:		Development Method:		
11/26/12 - 11/26/	12	Betts		Split Spoor	1	NA		
Driller:	Driller: Drilling Method: Drilling Equipment: Ground Surface Elev: NA		ce Elev: NA		Easting: 2292607.4 ft			
Paul Hornage HSA Truck mount			mounted CME	TOC Elev: N	A		Northing: 566479.8 ft	

	96			Graphic Log		(m	
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
5—	NR	No recovery No recovery Planting of the ship of t					Drilled to 10 ft with hollow stem auger (HSA).
	FILL	Plastic, 6 ml thick plastic. Solvent/paint odor, black layer.	↓ ■		$\langle \rangle \rangle \langle \rangle$	77.7	Collected soil sample B-4-9-10'
_	SP/SC	Red SAND with trace CLAY. Dry to moist. Boring Terminated at 10 ft.				//-/	D- T- 7-10

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND **B-4**a Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: **Borehole Diameter:** Geologist/Office Checked By: Slot Size: Total Boring Depth (ft) George Skala/Atlanta NA 20.0 ft. Tamara Berryman Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Drilling Method: Drilling Equipment: Ground Surface Elev: NA **Easting:** 2292605.1 ft Driller: **TOC Elev:** NA **Northing:** 566479.8 ft Geoprobe 6620DT David Hoilett Direct Push

	ė,			Graphic Log		n)	
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
_	СН	Hard compacted CLAY, some Sand. Black staining towards the bottom.					Drilled to 20 ft with direct push.
-						3.4	
-						3.6	Collect soil sample B-4a-3-4'
-	SC	Black SANDY CLAY, plastic present in soil.				9.6	
5-						11.5	
-						17.6	
-	CL	Transition to red CLAY and Sand.				3.0	Collect soil sample B-4a-7-8'
-	SC	SANDY CLAY, red. No plasticity.				7.8	
-						5.4	
10-						3.6	Collect soil sample B-4a-10-11'
-						3.2	
-	SC	Same as above, slight odor at 15-16 ft.				3.3	
-						4.0	
-							
15-							Collect soil sample B-4a-15-19'
-	SP	SAND, yellow. Slight odor, with kaolin/chert. Boring terminated at 20 ft.				3.3	
-						3.2	
-						3.2	
-						3.4	

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND GP-1 Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: **Borehole Diameter:** Geologist/Office Checked By: Slot Size: Total Boring Depth (ft) George Skala/Atlanta NA 20.0 ft. Tamara Berryman Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Driller: Drilling Method: Drilling Equipment: Ground Surface Elev: NA **Easting:** 2292605.7 ft **TOC Elev:** NA **Northing:** 566485.7 ft Geoprobe 6620DT David Hoilett Direct Push

)e			Graphic Log		(m	
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
-	SC	SAND with some Clay, reddish color, very birttle. Blackens towards the bottom, more clay towards bottom.				3.6	Drilled to 20 ft with direct push.
5—	SC	Black SAND, with fine grained kaolin. Grades into CLAY and	1			3.8 4.1 7.3	Collect soil sample GP-1-4-5' Collect soil sample
- - -		Black SAND, with fine grained kaolin. Grades into CLAY and SAND towards the bottom.				19.6 7.1	Collect soil sample GP-1-5-6'
10—	SC	Fine grained SAND with some CLAY, organic staining, no odor.				4.5 4.7 5.1	
- - - -		The granted of the State of the				7.8 8.0	
- - - 15—						8.8	Collect soil sample GP-1-14-15'
-	SP	Medium grained SAND, no staining. Boring terminated at 20 ft.				9.2 4.1 3.6	
- - -						3.3 4.1 4.5	Collect soil sample GP-1-19-20'

Permit Number: Boring No. Project Name: Former Macgregor Golf Company Brown AND GP-2 Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: **Borehole Diameter:** Geologist/Office Checked By: Slot Size: Total Boring Depth (ft) George Skala/Atlanta NA 20.0 ft. Tamara Berryman Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Driller: Drilling Method: Drilling Equipment: Ground Surface Elev: NA **Easting:** 2292599.7 ft **TOC Elev:** NA **Northing:** 566481.3 ft Geoprobe 6620DT David Hoilett Direct Push

	e		T	Graphic Log		n)	
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
- - -	SC	SANDY CLAY, slightly black staining. Brittle.				1.3	Drilled to 20 ft with direct push.
- - - -						1.4	Collect soil sample GP-2-4-5'
5	CH SC	CLAY, stained black. SAND with some Sandy clay.	-			3.2	
- - - -						2.9 15.1 7.8	Collect soil sample GP-2-7-8'
10-	SC	SANDY CLAY.				9.6 3.1 3.2	
- - - - 15—						3.3	Collect soil sample GP-2-14-15'
-	SP	SAND towards the bottom, has slight green color. Boring terminated at 20 ft.				4.56.67.9	
- - -	-					5.3 9.8 7.1	Collect soil sample GP-2-18-19'

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND GP-3 Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: Borehole Diameter: Slot Size: Total Boring Depth (ft) Geologist/Office Checked By: George Skala/Atlanta 20.0 ft. Tamara Berryman NA Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Drilling Method: Ground Surface Elev: NA Driller: **Drilling Equipment: Easting:** 2292604.9 ft **TOC Elev:** NA **Northing:** 566474.7 ft David Hoilett Direct Push Geoprobe 6620DT

	e e			Graphic Log		n)	
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
-	SC	CLAY with some SAND, some plasticity, some organics. Black color at 4-5 ft.				3.5	Drilled to 20 ft with direct push.
-						3.4	Collect soil sample GP-3-4-5'
5— - -	SC/CL	CLAYEY SAND, black staining at 7-8 ft, grades into SAND.				4.0 5.3	GP-3-4-5
-						6.4	Collect soil sample GP-3-7-8'
10-	SC	SAND with some CLAY, some kaolin.				7.7 7.3 8.0	
-						10.3	
- 15—	SC	SAND with little clay, hard non plastic. Some kaolin. Boring				11.3 11.4	Collect soil sample GP-3-14-15'
- -		terminated at 20 ft.				11.3	Collect soil sample GP-3-17-18'
-						15.1 14.6 14.5	GP-3-17-18'

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND GP-4 Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: Borehole Diameter: Slot Size: Total Boring Depth (ft) Geologist/Office Checked By: George Skala/Atlanta 20.0 ft. Tamara Berryman NA Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Drilling Method: Drilling Equipment: Ground Surface Elev: NA Driller: **Easting:** 2292610.9 ft **TOC Elev:** NA **Northing:** 566479.8 ft Geoprobe 6620DT David Hoilett Direct Push

	be			Graphic Log			
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
-	SP	SAND with some kaolin, organic matter present. Trasition to red SAND at 4 ft.				10.5	Drilled to 20 ft with direct push.
-						10.8 11.2	Collect soil sample
-						14.8	Collect soil sample GP-4-3-4'
5 - - -	SC/CL	SAND, no organic staining. Soft, some clay content.				14.6 12.8	
-						13.9	
-						14.7	
- —(SC	Hard SANDY CLAY, medium grained with kaolin.				16.3 16.6	Collect soil sample GP-4-9-10'
-						19.3	
-						19.7 20.1	
- - -						18.6	Collect soil sample GP-4-14-15'
5 - - -	SP	SAND, greenish color. White kaolin present. Boring terminated at 20 ft.				21.3 18.3	
-						17.2	Collect soil sample GP-4-17-18'
-						19.1 17.6	
-						18.1	

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND GP-5 Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: Borehole Diameter: Slot Size: Total Boring Depth (ft) Geologist/Office Checked By: George Skala/Atlanta 20.0 ft. Tamara Berryman NAStart/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Drilling Method: Drilling Equipment: Ground Surface Elev: NA **Easting:** 2292593.7 ft Driller: **TOC Elev:** NA **Northing:** 566481.1 ft David Hoilett Direct Push Geoprobe 6620DT

	96		Graphic Log				
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
- - - -	SC	Red CLAY and SAND, brittle.				18.6 18.3 18.5	Drilled to 20 ft with direct push.
5— 5—	SP/SC	Stained black SAND with red Sandy Clay. Odor at 7-8 ft.	I			19.0 22.0 16.3	Collect soil sample GP-5-4-5'
- - - -			I			15.7 54.3 17.3	Collect soil sample GP-5-7-8'
10	SC	Saturated CLAY and SAND, staining around 10 ft.				20.1 10.8 18.7	
- - -						18.8	Collect soil sample GP-5-12-13'
15—	SP	Compacted m SAND, greenish color. Boring terminated at 20 ft.				17.1 14.9 15.6	
- - -						14.1 13.8 18.6	Collect soil sample GP-5-19-20'

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND **GP-6** Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: Borehole Diameter: Slot Size: Total Boring Depth (ft) Geologist/Office Checked By: George Skala/Atlanta 20.0 ft. Tamara Berryman NAStart/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Drilling Method: Drilling Equipment: Ground Surface Elev: NA **Easting:** 2292605.7 ft Driller: **TOC Elev:** NA **Northing:** 566491.2 ft David Hoilett Direct Push Geoprobe 6620DT

	96			Graphic Log		(iii	
Depth (feet)	USC Soil Type	Description	Sample Int	Lithology	Backfill	Readings (ppm)	Remarks
-	SC	CLAY and SAND, red. No plasticity.				9.8	Drilled to 20 ft with direct push.
-						8.5 10.3	Collect soil sample GP-6-2-3'
5—						9.1 8.6	
-						6.7	
-						7.8 8.4	Collect soil sample GP-6-8-9'
10-	SP/SC	CLAY and SAND, red. No plasticity. Transition to SAND with slight CLAY.				10.1 8.6	
-		Siight CL2VI.				10.2 9.5	
-						10.5	
15—	SP/SC	CLAY and SAND, red. No plasticity. At 18 ft, SAND color change to yellow. Some kaolin. Boring terminated at 20 ft.				10.6	Collect soil sample GP-6-14-15'
-						7.5 7.8	
-						7.5 8.9	Collect soil sample
_						8.9	Collect soil sample GP-6-19-20'

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND **GP-7** Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: **Borehole Diameter:** Geologist/Office Slot Size: Total Boring Depth (ft) Checked By: George Skala/Atlanta 20.0 ft. Tamara Berryman NA Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Drilling Method: **Drilling Equipment:** Ground Surface Elev: NA Driller: **Easting:** 2292616.3 ft **TOC Elev:** NA **Northing:** 566479.8 ft Geoprobe 6620DT David Hoilett Direct Push

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_	pe					Graphic Log			(mr	
Depth (feet)	USC Soil Type		Description		Sample Int	Lithology	Backfill	Readings (ppm)	Remarks	
- - -	SC	CLA	AY and SAND, with organic plastic.	matter, heavily compacted	, hard,				8.3	Drilled to 20 ft with direct push.
-									8.3 7.2	Collect soil sample GP-7-3-4'
5—	SC/CL	SAN	ND with some CLAY, red. D	hadk with orongic color					9.1 8.3	GP-7-3-4
-	SC/CL	SAN	ND with some CLA1, red. L	raik with organic color.					7.4	
-									6.7 6.9	
10-	SC/CL	SAN	ND with some CLAY, light y	ellow.					11.1 15.2	Collect soil sample GP-7-9-10'
-									8.4	Collect soil sample GP-7-11-12'
-									9.9 8.0	
- - 15	SP	Cho	erty SAND hard brittle Rose	ing terminated at 20 ft					9.0 8.8	
- - -	or	Che	rty SAND, hard, brittle. Bor	ing terminated at 20 ft.					12.1	
-									11.4 15.3	Collect soil sample GP-7-17-18'
-									10.9 11.1	

Permit Number: Boring No. Project Name: Former Macgregor Golf Company **Brown** AND GP-8 Project Number: 143327 Caldwell NA Project Location: 1601 South Slappey Blvd, Albany GA Page 1 of 1 Screen Diameter and Type: **Borehole Diameter:** Geologist/Office Checked By: Slot Size: Total Boring Depth (ft) George Skala/Atlanta NA 20.0 ft. Tamara Berryman Start/Finish Date **Drilling Contractor:** Sampling: **Development Method:** Continuous Core 2/22/13 - 2/22/13 NA Atlas Geo Driller: Drilling Method: **Drilling Equipment:** Ground Surface Elev: NA **Easting:** 2292606.2 ft **TOC Elev:** NA **Northing:** 566469.7 ft Geoprobe 6620DT David Hoilett Direct Push

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